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# COLMAN'S RURAL WORLD.

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

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# IN THE POULTRY YARD

## TO BUYERS AND SHIPPERS OF EGGS.

It is a conservative estimate that more than \$45,000,000 are lost in the egg producing sections annually because of improper handling. This enormous loss is due to small eggs, cracked and broken eggs, dirty, stale, heated (hatched) and rotten eggs. Just think of the waste this sum means, from the time the mother hen loses from her business of egg laying in order to hatch and bring up the hens that lay these wasted eggs, to the money that the housewife pays for the bad egg that can not be used, to every one in the egg business, and to the consumer. Will you assist us in our effort to save this loss and to improve the egg that finally gets to market?

When farmers, peddlers, merchants, etc., come to you with eggs for sale, talk to them about the improvement of the market egg, and enlist their cooperation in the elimination of this great loss. Here are some of the fundamental points to be considered by all men, whether producers, shippers, or middlemen:

1. Encourage the production of large eggs. This can be accomplished by keeping purebred breeds of fowls, hatching only the eggs that weigh at least two ounces apiece and from only the most vigorous stock. A higher price for large than for small eggs will help along the argument.

2. Infertile eggs do not hatch, do not form blood rings and seldom form black rots. If male birds are sold or penned up after June 1 the flock of hens will lay more eggs and they will be infertile.

3. A year-round observation of New York egg receipts showed that over 12 per cent were dirty and sold for a lower price on this account. You should buy these dirty eggs at a lower price, for you receive less for them. If one nest is provided for each six hens, in a cool, dark place, kept clean and vermin free, dirty eggs will be reduced to a minimum.

4. More than 10 per cent of the eggs received in New York during the year are "seconds" because they are stale. Tell your egg men that gathering eggs every afternoon, or twice daily in hot or murky weather, keeping them in a cool, clean, dry place until marketed, and marketing at least once a week and more frequently in the summer time, will reduce the number of stale eggs greatly. Of course, stale eggs are worth less money than fresh eggs, all along the line.

5. Can you convince your trade that eggs from "stolen" nests and from incubators are never fit for sale? If the farmer thinks they are good, reliable food urge him to eat them at home. For, since the egg buyer can afford to pay more for large, clean, fresh, whole-shelled eggs, it is good business for the farmer to use small, dirty, cracked eggs at home.

6. Do you know how to candle eggs? If not, learn quickly. There is no other way by which you can determine the worth of what you are paying for. Having yourself learned how to grade eggs, show the merchants, peddlers and farmers, in your neighborhood, by means of the candle, what kind of eggs they are bringing to you. Farmers are not scamps, nor egg buyers angels. Show the farmer the kinds of eggs you can pay for and he will find a way to eliminate the bad egg and to make the good egg even better.

7. When first quality eggs come to



## TURKEYS IN WINTER.

I have found from several years of experience that turkeys will not do well closely confined. I never house my turkeys even in the severest weather; then I drive them in the shed, as nothing is more taxing on a turkey than to lug around for several days burdened with a load of frozen ice all over his plumage. January and February are very trying months on all live stock, and poultry should then receive the best of attention. I allow my turkeys to roost out in the open all winter. It seems as if they enjoy the branches of a tree for their roosting place, and the colder the nights the higher they seem to want to go. As night approaches and I see the night promises to be wet, cold and disagreeable, I gently drive the turkeys to a large roomy house prepared expressly for them, giving them their freedom next morning, while all other poultry is retained quietly in their quarters.

Turkeys require their wild habits, and as soon as we house them and treat them as other natural domesticated fowls they seem to go wrong and become diseased. We are compelled to give turkeys as near as possible the same requirements as the original wild turkey, in order to secure the best possible results. Never house turkeys when it can be avoided. They will go in the poultry house, however, at any time and drive out every fowl in it and then vacate the building themselves.

It is not wisdom to grow chickens and turkeys together any more than hogs and sheep in the same pen. Keep the poultry house doors closed so the turkeys cannot enter, and prepare small openings in the house so that the chickens can pass in and out. Turkeys you will find, as a rule, keep healthy and when they are compelled to roost out and forage considerably over the farm, but as soon as you house them and they are permitted to drink and feed with the rest of the barn yard flock, roup or some other fatal disease claims a number of them. Let them roost in the branches of trees and they will thrive much better.—A. E. Vandervort.

## FOWLS, WINTER, HOUSES.

Next in importance to having fowls ready for winter is the care of the quarters they occupy. Keep the houses clean and the roofs patched, and whitewash the inside, including all the fixtures. Wash the windows. Replace the old muslin curtains with new material. Disinfect thoroughly.

See that there can be no possibility of drafts. Keep plenty of clean straw in the house for litter. Do not overcrowd; allow at least four square feet of floor space per bird, and six square feet each would be still better. Keep everything in and about the house in a clean and sanitary condition. Disinfect regularly and plentifully.

## SEX MARKS IN DUCKS.

A scientific poultryman says that the sex of Indian Runner ducks at ten weeks of age may be told by watching them when about to be fed. The ducks will give a loud quack, while the drake will give a noise like a low whistling quack. Or, if one catches a duck, it will give the loud, harsh noise, and in the case of the drake there will be the whistling sound.

Rations for chickens should include a small portion of meat, but as a rule, it is quite expensive. Commercially it is sold in such forms as beef scrap, animal meal, blood meal, and fish scrap. Sour milk as a substitute for meat has given splendid results.

## LAYING SIGNS.

Good signs of a good layer in yearling hens are: Late and quick molts; legs, in yellow-legged varieties, rather pale; toenails worn down short go to prove that she must have been working the year before. A working hen always is a good layer. Other characteristics of a good laying hen are:

The first off the roosts in the morning, and scratching vigorously in the litter. She is the last to go on the roosts at night, and is working and singing practically all day long. A good laying hen will be noticed hanging around the water pan more than the poorer layers.

## PULLETS IN THE FALL.

If pullets have been kept on free range and hopper-fed during the summer, which is by far the most successful method, careful treatment and feeding are necessary when they are first put into the laying houses in the fall. They should be moved into winter quarters before they commence laying, as moving them after they are once started gives them a setback.

It is a safe rule to have laying houses cleaned, whitewashed and in

a perfect condition, and the pullets comfortably settled in them before cold weather comes. They can then be kept confined until spring or, if there is a dry fall, they should be allowed out; after cold stormy weather once sets in, they will do better if confined all the time.

## Egyptian Incubators.

At a scientific meeting in London, England, a lecturer on poultry gave one of the surprises of the agricultural section. W. H. Cadman has uncovered the Egyptian secret of egg hatching. The Egyptians turned out 13,000,000 chickens a year from incubators, the form of which has only just become known.

Each incubating oven, as now reproduced, contains 7,000 eggs, which are heated by very small fuel supplies of chopped straw and dung. For the last ten days the heat is supplied by the energy developing in the chickens in the egg.

## POULTRY KEEPERS' DON'TS.

"Don't use mongrel stock" is one of the first signs encountered on entering the Utility Poultry Show held by the Poultry Department of the Oregon Agricultural College recently. Professor James Dryden thus expressed his estimate of the value of mongrel fowls. He has resorted to a limited and scientific use of cross-breeding in his work of developing a new variety, but only mongrels are different considerations.

"Don't use immature stock," is the next sign displayed. Both size and variety are affected unfavorably by mating over young chickens. Vitality is an important factor in heavy egg-laying.

"Don't start too big," comes next. No amount of knowledge and enthusiasm can make up for lack of experience, and mistakes are sure to be made in the beginning. If the beginning is on a large scale, some of these mistakes will prove very serious. Therefore, they should be made with only a few fowls. When the business has grown the mistakes can be avoided.

"Don'ts" will not conduct a profitable poultry business but the intelligent observation of these three will steer the beginner clear of some of the most disastrous, though alluring, mistakes.

Fowls, like animals, thrive best when given a variety of grains, and the following will be found a satisfactory mixture: Equal parts by weight, of corn, wheat, and oats. When corn is difficult to obtain, we have had splendid results by substituting barley.

Grit should be supplied to chickens at all times, as it aids digestion. Lime in some form must be supplied to the laying hen, to keep up her supply, which is so heavily drawn upon during egg-production. Grit can be purchased in commercial form, or coarse sand and small stones will do. Lime can be purchased in the form of oyster shells, though old plaster or dry cracked bones are fairly good.

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der now. Circular free. Write  
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# CREAM of the DAIRY NEWS

## THE DETERMINATION OF SEX.

This vexed question, which has been so often under discussion, both as to the human family by physi- gists and by breeders of various lines of live stock, is never settled to the satisfaction of everyone in the argument.

An experience in breeding Holstein cattle for a number of years, with careful observation, has convinced me that the rule holds good that whichever parent enjoys the highest degree of nutrition impresses on the offspring the opposite sex; for instance, bull in better condition is more liable to produce heifer calves; cow to the same degree superior will yield bull calves.

Our own experience, during the past two years at Hillcrest Farm, is in evidence. In 1905 we had a foreman who paid very little attention to his bulls, consequently the cows were in better comparative condition of nutrition; result, 1906, 80 per cent of our calves were bulls. Last year, since Mr. W. G. Lyon became foreman, more attention was paid to the bulls, consequently both Prince Inka, Pieterje DeKol 2d and Hillcrest Sarcastic Lad have had this season 90 per cent heifer calves to their credit. This would disprove the theory that old bulls get bull calves and younger ones heifers, as Prince is 10 years old and Lad only 2. I do not believe the time of service—that is, early in the heat, or later—has any influence.

These observations are based on a herd of sixty cows, and should be entitled to more credit than would be accounted for by mere coincidence.

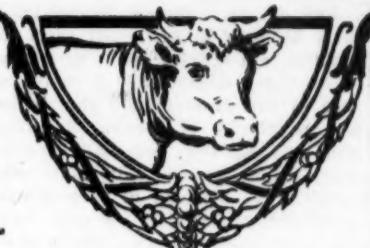
**GEORGE C MOSHER,**  
President Missouri State Dairy Association, Vice-President Missouri Improved Live Stock Breeders' Association.

Dr. Mosher being a well-known physiologist, pathologist and obstetrician of Kansas City, his opinion in regard to this matter is of more than passing value. The above article was written 1906-7, and W. G. Lyon, who has ever since continued as a breeder and handler of dairy cattle, holds to the opinions expressed in the article. Mr. Lyon is now of Lyon Bros.' Sanitary Dairy, Hickman's Mills, Mo., in business with his brother Wayne, who for one year had the credit of sending the milk of 125 cows to market with the lowest bacterial count of the milk of any large dairy in the district.

## COSTS IN FEEDING LIVE STOCK.

The grain and other feeds grown on the farm, where they are fed, should be charged to stock at the market value at the farm, which is the price at the elevator, minus the cost of hauling. This is the result of seven years' experience in studying farm cost accounting problems in the Section of Farm Economics.

The object of cost accounting is to show an analysis of the entire farm business; and the relative profitability of each enterprise, as well as the relative costs, should be made clear. If the farmer is to learn the truth about the cost of his corn, oats, hay and other feedable products, he must do considerable figuring and have a good understanding of farm cost accounting methods. On the other hand, the market values of grains and other feedable products serve as a common standard from which any farmer may easily figure the cost of feeding them to live stock. The market price



## FEED DRY COWS WELL.

When cows are dry they should be well fed to put them in good condition at the time of freshening. Such cows will milk much better than will those that are thin at the beginning of their milking period. It pays to feed liberally during the period when a cow is carrying and feeding the calf and preparing for a heavy strain on her system during the coming lactation period.

## CARBOLIC ACID FOR ABORTION.

The Montana experiment station has published a bulletin in which they describe the use of carbolic acid as a treatment for contagious abortion. The conclusions of the bulletin are as follows:

1. Carbolic acid, either fed in solution or injected hypodermically, seems to be a specific against contagious abortion.
2. Cows, as a rule, will eat with apparent relish as much as 750 cubic centimeters of a 4-per-cent solution of carbolic acid in feed daily.
3. The hypodermic injection as a treatment in an affected herd involves less labor than feeding.
4. In cases of impending abortion, carbolic acid may be injected in sufficient quantity to cause staggering gait and dilation of the pupil of the eye, when it should be withheld for from 10 to 15 hours and repeated with no apparent unsatisfactory after effects.
5. All males used for breeding purposes should be treated as indicated. Contagious abortion and granular vaginitis may be transmitted through the medium of the male unless proper precautions are observed.
6. Not all cows showing granular vaginitis abort.

7. Heifers pregnant for the first time are more liable to abort than during subsequent periods of gestation, and they should be carefully watched and vigorously treated if abortion exists in the herd.

## THE DAIRY TYPE.

While it is true that all cows of good dairy type are not high producers, it is true that 99 per cent of the cows that are great producers are of good dairy type; in fact, one might say that 99 per cent of all the cows that average over 300 pounds of butterfat a year are of the dairy type. This should be of sufficient importance to impress a dairy farmer with the fact that he should consider the dairy type in breeding up his herd. If he does, he will not prefer the service of a scrub sire to a purebred sire. The educated dairy farmer can see in the form of his animals what they are

## WHAT COW TESTING WILL DO.

The Department of Agriculture for Ottawa, Canada, sums up the benefits of cow testing as follows:

"Cow testing enables one to find out the poorest cows, those not paying for their feed, so that they may be got rid of. In many cases one-quarter of the cows in the herd have been discovered to be not worth keeping; in some cases half the herd and even as high as three-quarters, have been turned out. This means certainty in dairying, no more guess work as to individual performance."

"Cow testing shows that many cows considered only average are really the best in the herd."

"Cow testing points out definitely which cows are the best producers, both in milk and butter fat."

"Cow testing proves that many cows considered the highest in test are really the lowest."

"Cow testing saves good cows from being beefed; they are found to be profitable when actual yield and cost of feed are considered."

"Cow testing shows that many fine looking cows do not bring in much cash from the factory."

"Cow testing helps to discover the great difference in persistency of the milk flow."

"Cow testing brings to notice the slightest variation in flow and urges one to seek for the cause of the shrinkage."

"Cow testing helps to increase the total yield of milk and fat from the same number of cows."

"Cow testing brings in larger returns from fewer cows."

"Cow testing helps to build up a profitable herd quickly because heifers can be selected from the best cows."

"Cow testing allows more discrimination in feeding, apportioning the grain according to the yield of butter-fat."

"Cow testing emphasizes the benefit of liberality in feeding succulent, digestible foodstuffs."

"Cow testing abundantly proves that it pays handsomely to give dairy cows the best care and kind treatment; this includes regularity as to milking, early stablizing in the fall, protection from cold rains, spraying to protect from flies; and, above all, particular attention to cleanliness, light and ventilation in the stable."

"Cow testing demonstrates that a great many good cows can be kept at a smaller cost of feed. This is not stinginess, but economy."

"Keeping records makes one more observant of all those little details that go to make up success."

"Because cow testing develops this faculty of observation and induces reading and study, members of associations are becoming far better dairy-men."

"Cow testing increases one's love for good cows and creates infinitely more pleasure in the work of the farm."

"The hired men take more interest in the cows; consequently they give them better attention and get more milk."

"Neighboring farmers who originally scoffed at the idea of cow testing have become impressed with the results obtained by members."

"A great measure of personal satisfaction results from studying each cow as an individual performer not as a mere machine."

"The definite knowledge obtained from the regular monthly testing is much more satisfactory in every way

than getting an occasional result only once or twice a year."

"There is a great stimulus received from comparing notes and results with other members."

"Financially, cow testing is of very great benefit; young bulls sell for higher prices; cows sell for double the old price when buyers see records."

"Cow testing not only interests the boys and girls more and more in farm life, but materially assists in providing additional home comforts for the women and children."

## CALVES WITHOUT MILK.

A calf five months old will get along without milk. It is better, if it can be spared, to feed it milk until 10 months or even a year old. In weaning the calf from milk the steps should be taken gradually, reducing the allowance one or two pounds per day until no milk is being given. The calf should then be fed with all the clover hay it will consume together with a mixture of grain moderately rich in protein.

A little oilmeal, a quarter of a pound a day, given with some bran, corn chop and Union grains, equal parts by weight, would be a good combination for a growing calf. The oilmeal should be fed in small quantities and gradually increased to the amount suggested.

## FRENZIED DAIRYING.

The city cousin, on a short visit to her country cousin, was watching the latter as she commenced to do the evening milking.

"Oh I say, isn't it all so very interesting! And from which of the cows, Lucy, do you take the certified milk?"

## WOOL AND MUTTON.

Experience and observation teach that one of the great hindrances to economical mutton and wool production is the lack of forethought on the part of sheep owners to make adequate arrangements to alternate their flocks frequently from pasture to pasture, thus stimulating appetite, encouraging forage growth and promoting the most vigorous and economic gain. As a forage crop that may be sown early in the spring and depended upon to make rapid growth and furnish a large amount of very palatable pasture for sheep, oats and peas are among the very best.

This crop may be sown as early as the soil will permit cultivation, and under favorable conditions it will be ready for pasturing within four or five weeks. It is advisable to let the oats and peas make a good growth before being pastured. It is a very tender crop and will not survive close grazing. In pasturing oats and pea forage crop do not allow the sheep to feed upon the crop more than a few hours at a time. The sharp hoof of the young sheep has a tendency to cut the young plants and injure their growth, but by taking the sheep out as soon as they are filled up, much of this trouble will be avoided.

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## ST. LOUIS NATIONAL STOCK YARDS.

Hull & Miller of Hull, Ill., were on the market Monday with 2 loads of hogs. Hess Com. Co. sold this lot at very satisfactory prices.

Livingston & Wall of Iberia, Mo., had a load of heifers on Monday's market. Moody Com. Co. took care of this sale for the shippers.

Manlove Bros. of Bowlin, Ill., had had a load of hogs in last week. The sale was handled by Long, Harlin & Co. and brought \$8.57½ per cwt.

A. R. Hamilton of Augusta, Ill., was represented on Tuesday's market with a load of hogs. These were sold at satisfactory prices by Hess Com. Co.

G. W. Goins & Co. of Kevil, Ky., had 70 hogs on the market Monday. These were sold by Rafferty Com. Co. at \$8.40 per cwt. This shipment averaged 180 lbs.

J. W. Shaff & Co. of San Luis Valley, Colorado, had 2 decks of lambs on the market last week. This sale was handled by Moody Com. Co. and brought satisfactory prices.

E. E. Evans of Clinton, Ky., a regular shipper, had 73 hogs on the market last week. This consignment brought \$8.50 per cwt. and was handled by the Rafferty Com. Co.

W. O. Bailey of Ethel, Mo., came close to the top of the market with a shipment of 90 hogs, which sold at \$8.40 per cwt. last Friday through Dimmitt-Caudle-Smith Com. Co.

I. A. Taylor of Winchester, Ill., had a good shipment of hogs on the market last week. These brought \$8.55 per cwt. and were sold by Dimmitt-Caudle-Smith Live Stock Com. Co.

Murphy & Ramsey of Weldon, Iowa, were here Monday with 3 cars of hogs. These were handled by Hess Com. Co. and 2 cars sold at top prices. The shippers reported entire satisfaction.

C. G. Gailbreath of San Luis, Valley, Colo., was on Monday's market with a load of lambs. This shipment brought \$8.15 per cwt—the top price—and the sale was made by Moody Com. Co.

Welle & Wrightsman of Virden, Ill., were represented on the market last Friday with a consignment of 125 hogs that sold at \$8.50. Dimmitt-Caudle-Smith Com. Co. handled this shipment.

Oswald Bros. of Cooper County, Mo., marketed a load of 16 cattle Tuesday. These averaged 1602 lbs. and sold at \$9.25, the top of the market. Nally-Wells Com. Co. handled the sale for Oswald Bros.

J. D. Trimble of Callaway County, Mo., had 24 steers on Monday's market. The shipment was taken care of in good shape by Fry, Hanna & Harrison Com. Co. and sold at satisfactory prices.

Strauss Bros. of Pike County, Ill., regular shippers, were on the market Monday and brought top prices with a load of 54 hogs, averaging 228 lbs., and which sold at \$8.65 by Nally-Wells Com. Co.

A. B. Hale of Milton, Iowa, had 2 cars of hogs on last Saturday's market. This shipment sold at \$8.55 and \$8.65, the latter being the top for the day. Long, Harlin & Co. handled the sale for Mr. Hale.

The Wills Point Cattle Co. of Van Zandt County, Texas, had two cars of cattle on the market Monday that sold at satisfactory prices. This consignment was sold by the National Live Stock Com. Co.

T. H. Gardner of Brookfield, Mo., was on the market Monday for the first time in six months. Mr. Gardner

had a shipment of hogs, and as usual Hess Com. Co. handled the sale to Mr. Gardner's satisfaction.

M. Lackland of Mexico, Mo., had a load of mixed sheep on the market Monday. The consignment brought the extreme top for the day, the sheep bringing \$5.50 and the lambs \$8.25, and were handled by Clay Robinson Co.

Fitzgerald & Gibbs of Piggott, Ark., were on the market Monday with a load of 48 steers that sold at \$7 per cwt, which is very satisfactory for Arkansas cattle. This load was sold by Dimmitt-Caudle-Smith Live Stock Com. Co.

J. A. Medlin of Caruthersville, Mo., Frank Myers of Piedmont, Mo., and Luke Anderson of Charleston, Mo., were represented on the market Monday with cattle. Milton Marshall Live Stock Com. Co. handled the sales for these breeders.

E. A. Russell of Van Zandt County, Texas, accompanied a two-car consignment of cattle to the market Monday, and he expresses himself as very well pleased with his sales in general. The consignment was handled through the National Live Stock Com. Co.

J. B. Wardlow of Como, Miss., a prominent cotton merchant and stock dealer, had a load of 11 bulls on the market Monday. These averaged 1234 lbs. and sold at 7 per cwt., a record for Mississippi bulls in East St. Louis market. Clay Robinson Co. handled the shipment.

J. T. Mitchell of Ashley County, Ark., was in Tuesday with a six-car shipment of cattle. Mr. Mitchell was prominently identified with the live stock industry in all its branches and he has been successful to a marked extent in its operation. His shipments during the course of the year are considerable. The National Live Stock Com. Co. handles his consignments.

The American Aberdeen Angus Breeders' Association has placed in Montgomery, Ala., a load of 37 bulls to be sold at auction. The bulls are thoroughbred yearlings and the idea is to introduce this new blood into the Southern states. The contributors to the shipment have been guaranteed at least \$100 per head. Clay Robinson & Co. handled the shipment for the association.

H. C. Mitchell of Colquett, Ga., had 2 loads of cattle on Tuesday's market. In the lot were 35 cows and heifers, averaging 635 lbs. that sold at \$5.75 per cwt. The bulls averaged 896 lbs. and sold at \$6.35. Steers sold at \$5.90 to \$7.15. Mr. Mitchell was formerly connected with a local commission firm at this point and is now devoting his time to breeding and shipping. Milton Marshall Live Stock Com. Co. handled the sale for Mr. Mitchell.

J. C. Crabtree, an extensive feeder of McIntosh County, Okla., was represented on the market this week with four cars of cattle. Jim, as he is more familiarly called, has been a resident of Oklahoma for some years and has seen vast changes that have all tended to the improvement and development of that resourceful section, now known as one of the finest agricultural states in the Union. The National Live Stock Com. Co. handles Jim's favors.

During the year 1913 representatives of the Missouri State Board of Agriculture conducted 240 institutes, attended by 53,612 people. These institutes were held in 77 counties of the state.

### SALT FOR FARM ANIMALS.

#### All Crave It and All Should Get It Regularly.

One of the common necessities of farm animals is salt. All farm animals have a craving for it to a greater or lesser degree, owing to the nature of the animals and the amount and regularity of feeding it. Dairy and beef animals, especially the former, require more salt than other farm stock, because of their greater feeding capacity. Salt not only makes the food more palatable, but it seems to sharpen the appetite and aid digestion. For this reason it should be supplied regularly. Most farmers think that it is enough to place salt in the feed lot or pasture once a week or at intervals of several days apart, but this is a lax practice and not conducive to a uniform consumption. While it may do for beef cattle and sheep, it is not the best way to feed it to dairy cattle in milk.

There are several methods of feeding salt that are good. One is to have two or three strong boxes bolted to posts, so that they stand well up off the ground, placed about the yard or in the pasture near the buildings. If a sloping cover is placed over these boxes, or if they are placed under a shed, they may be kept full at all times, with no danger of rains washing the salt away. Another good method is to place salt in the cow's manger, where she may take it as she wishes, but this cannot be done in stables having no feeding manager. I believe the best method is to give it to the herd after the grain feed, morning and evening—just a sprinkling distributed to each cow; to be exact, a good heaping teaspoonful per cow. Every cow will not eat this much, but the careful feeder who watches his cows, and knows them individually, will soon learn their requirements. The daily requirement, then, for cows in milk, will be from one to three ounces of salt. It may also be mixed with the feed when the ration is made up, but this is not to be recommended.

Horses will eat about as much salt as dairy cows, and often more if it is put before them. They should have it regularly in their feed manger, but

caution should be taken not to feed too much, as too much will cause the animal to drink excessive amounts of water, which will impair the digestion, and also increase the urine secretion. Sheep, also, should have salt daily. Prof. W. A. Henry points out in his book on "Feeds and Feeding," that in a feeding experiment in France in which three lots of sheep were fed the same ration of hay, straw, potatoes and beans, those receiving one-half ounce of salt per head daily gained 4.5 pounds per head more than those fed no salt, and but 1.25 pounds more than those fed three-quarters of an ounce of salt per head daily. This indicates that too much salt is as detrimental as too little. He says that the fleeces of the salt-fed sheep were better and heavier than those fed no salt.

The amount of salt in the soil in different sections of the country affects to some extent the amount of salt needed for farm animals. Some water also contains more salt than others, which affects the salt requirements. Young calves should also be given a little salt. While pigs need but little salt, it should be placed where they can get it in very limited quantities, together with charcoal and ashes. When fed properly there is nothing better than salt and charcoal as a tonic or condiment for swine. Rock salt is often used because it is easy to place it in the pasture, and will last a long time, but I have no use for it, since it makes the animal's mouth and tongue sore and does not supply the needed amount for the animal besides causing the animal to waste much energy in licking it.—F. L. Austin, in Pacific Dairy Review.

#### ALL ABOARD FOR FARMERS' WEEK.

Interest in the annual Ohio farmers' round-up, or Farmers' Week, which is to be held at Ohio State University during the week of February 2, is statewide. On the program which is now completed are many noted experts from the agricultural institutions of Ohio and other states. The number and scope of the many subjects to be covered is such that it will pay any farmer who can possibly make arrangements to go to

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H. B. Sanders		Clara Lynch	Mike Daley
F. F. Hunniger			Sheep Department
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Columbus and attend this farmers' school. In addition to the extensive program of lectures and demonstrations for the men, there will be an equally attractive Home Makers' school for the women who attend. Preparation of foods, home decorating, adaptation of patterns, house planning, home water supply, study and comparison of different kinds of clothing, meat preparation and a meat cutting demonstration are some of the things to be taken up at the Home Makers' school.

#### AYRSHIRE BREEDERS' ASSOCIATION ANNUAL MEETING.

The thirty-ninth annual meeting of the Ayrshire Breeders' Association was held at the Manhattan Hotel, New York, January 8th, 1914, with about one hundred members and friends present.

The opening address of President Valentine was jubilant with congratulations for the success and prosperity of the association and Ayrshire breeders during the year just closed.

The report of Secretary Winslow showed the association to be in a most healthy growing condition with eighty-eight new members and six who paid their fee after the books were closed for the year making ninety-four new members since last meeting.

#### ORGANIZATION OF THE MULE BUSINESS.

As a result of the discriminatory treatment of fairs and live stock shows, unfair shipping, etc., a conflict in standard requirements, and a score or more of discouraging features, the idea of a National Mule Association was the result of a meeting of citizens of Columbia, Tenn., in the fall of 1913. To bring all interests together, breeders, owners, dealers and users, and to accomplish needed improvements in type, and to successfully put this business—one of America's greatest assets—on its proper basis, was the moving inspiration of these Tennessee men, who breed and raise the American mule in his greatest perfection. Seemingly obstructions to harmony and pessimistic complaints, have been avoided in planning the organization, which will be perfected and laid before the mule men of America in February.

The mule, while of foreign origin, is in his perfection in the United States. He won his way by merit and service. We have in our lands a superabundance of this animal of all work, more than all the rest of the world. But as great as has been the growth of this business, it can be made still greater, and that means greater prosperity and progress for all. There is now no national organization, and there are a score of things that need the power of such an organization to improve. The expense of such an organization has been figured to the minimum, and the benefits based on reasonable expectations justify this Tennessee idea. Other live stock has its guardian organizations. Let the mule stand in the position his wonderful merits entitle him to.

The organization committee appointed at this Tennessee meeting is receiving the greatest encouragement, and care and caution will bring forth a potent, powerful organization to conserve the interests of our great products. Give us a real standard based on experience, designate the types with intelligence and separate in shows and market the half dozen different types. Show by actual demonstration the mule's merits; let all men of this country and other lands know his worth and value and his

very reasonable cost of upkeep. Put the mule, America's greatest live stock asset, on an equal basis with France, Germany and Great Britain's prides of horseflesh, the shaggy, ponderous Percheron, coacher, drafter and the like. What animal enters more into the life in the city, country, tropics, or polar lands than the mule? He deserves recognition and a general support of this movement for more and better mules. England boasts that the sun never sets on the flag of that country; let America boast that it never sets on the American mule.

The organization committee of the American Mule Association is composed of representatives of each interest. Offices are in Board of Trade, Nashville, Tenn., and inquiries will be promptly answered by W. S. Williams, Secretary Organization Committee.

#### OFFICERS OF BOARD OF AGRICULTURE.

At the annual meeting of the Missouri State Board of Agriculture, held in Columbia, Jewell Mayes, editor of the Richmond Missourian, one of the best known country weeklies in Missouri, was elected as secretary, to succeed W. C. Wilson, who has held the position since March 1, 1910. Mr. Hayes will enter upon his duties February 1. All other officers of the board were re-elected as follows: President, P. P. Lewis, Crescent; vice-president, W. R. Wilkinson, St. Louis; assistant secretary, W. L. Nelson, Columbia; treasurer, W. A. Bright, Columbia.

#### EXHIBIT OF INDUSTRIAL CONGRESS AT CORN SHOW.

The yields of the contestants of the Congress are to be featured at the National Corn Exposition in Dallas, Tex., February 10-24. Letters have been sent to the 11,000 contestants enrolled in the 1913 competitive crop production, asking them to send in not later than February 1 samples showing their best yields. These samples will be arranged in the Texas Industrial Congress Exhibit in the Art Building, which has been given over to the use of the Congress, and they will compete for the prizes offered by the management of the Corn Exposition.

In addition to the exhibits of cotton, corn, kaffir, milo and cowpea hay made by the contestants, the Congress will have a series of charts in which will be shown the cost of poor farming to the state, the farmers, and the business men, and the benefits to be gained through better farming. Besides these charts there will be representatives of how plants take their food from the soil; the different amounts of moisture in the same volume of course-grained and finely grained soils; how to save the hillside from washing, and so on, the object being to make this part of the exhibit an educational display of as great interest as possible.

#### PREPARING MEAT FOR CURING.

It is highly essential that all animal heat shall be removed from meat before an attempt is made to prepare it for curing. If the surface of the meat comes in contact with salt before all the animal heat is removed, it will have a tendency to shrink the muscles and form a coating on the outside which will allow the generating gases to escape. Meat should never be frozen when salted, as the frost will prevent the proper penetration of the brine, and uneven curing will be the result.—W. H. Tomhave, formerly of University Farm, St. Paul.

## Weekly Market Report

#### CATTLE SLOW—HOGS ACTIVE— GOOD GRADES OF CATTLE STEADY—STEERS HIGHER.

**CATTLE**—Only a moderate offering of beef steers. With a couple of exceptions, prime steers were rare, the bulk of the showing being of medium to good grade, and the former kinds were in the majority. Market opened on a slow basis. In fact, this characteristic was inclined to feature the market throughout. Very few loads had crossed the scales before noon, and if was after that hour that the real clearance was started. Market was irregular, sellers calling prices steady to a dime lower, while in other places it looked like a steady market. The top was \$9.25, made on a load of strong weight steers, and most of the steers of good weight looked about steady. Medium grade steers of medium to good weights sold easy in places. There was a good clearance.

Heifers were in small supply and the big end of the showing comprised odds and ends, full loads being scarce, and particularly those of good grade. There was a fair demand from outsiders and packers showed a little more desire to purchase heifers. Market at that, however, was rather slow throughout and prices barely steady.

Supply of cows was very small and included only a small proportion of choice kinds. Demand was fair from butchers and packers, and while, like heifers, market was rather slow, prices looked about steady throughout. Bulls were in fair supply, and while best kinds sold steady to easy, medium grade bulls were about 10@15c lower.

A fair sprinkling of desirable grades of feeders made \$7 and went above, and a few bunches of stockers also sold close to \$7. Demand for she-stuff was fairly good and market was active, bulk clearing at steady prices. Yearlings and stock calves also found a right fair request, and prices looked firm in every transaction.

Southern steer supply comprised mostly shorthorn stuff, and in addition to the Texans there were also a few loads from Southeastern states. There was a good demand for the steers, and they got action fairly in the day. A bunch of Texas steers topped at \$7.90 and bulk of the steers sold at 7.65@7.75. The Oklahoma steers brought \$6.90 for the best. A load of Texas steers also brought \$6.85. Most of the steers out of the Southeastern territory sold at \$6.25@6.75. Very little change in the trade in canners was evident. Supply was good, but there was also a good demand and market was steady. Yearlings and heretics opened on a steady basis, but later a few bunches sold 25@35c lower.

**HOGS**—A right good demand prevailed and the market was active with prices about 5c higher. Some hogs showed to be more than 5c higher, but the general trade was just about a nickel better than on Saturday. Several loads went at \$8.65, which was the top, while the bulk of good hogs brought \$8.40@8.55. It was a right good trade most of the day and at the close there was a good clearance. All buyers were operating freely, but shippers and butchers were strongest bidders for the good hogs.

The top was 7½c higher than the top in Chicago, as the highest price there was \$8.57½. A good lot of hogs here brought \$8.60. The bulk was also a little better here than in Chicago. Any hogs carrying a little weight that suited shippers and butchers sold at \$8.55 and upward, while mixed and plain offerings found sale to packers



at \$8.35@8.50, and the rough throw-outs at \$8.10@8.25.

Some of the Southern hogs weighing 165 pounds and over had to go at 7.25@8, the same as last week, as there was little outlet for these hogs. Buyers are rather careful about these hogs, many of them have been killing soft of late.

Lights and pigs that had a little quality and weight found sale at good prices, the best lights under 165 lbs. bringing \$8@8.35, fair grades \$7.35@7.90, best quality pigs under 125 lbs. brought \$7.60@8, fair to medium \$7@7.50, and the poor grades \$6@6.85. The poorer grades were hard to move at any price.

**SHEEP**—Only a small supply of sheep and lambs, and as there was a good demand the market was active with prices on a steady basis for sheep, while lambs were 10@15c higher. The supply lasted but a short time and none of the buyers secured anything like the number they wanted, owing to the small supply offered.

The double decks of lambs were received from the San Luis Valley (Colorado), that brought \$8.15, against \$8 the latter part of last week. This was the highest price of the day. Best native lambs offered sold at \$8. Some Western lambs sold at \$7.50@8.10, according to quality and fat. It was no trouble at all to sell the good fat lambs at reasonably good prices.

No yearlings were received and sheep of all kinds were very scarce. Best fat mutton sheep sold at \$5.50, the same as all of last week, while those that were not very good went around \$5.25. Best stockers and choppers brought \$3.75@4.25, and bucks sold at \$4.25.

#### HORSES AND MULES.

**HORSES**—There was an estimate hung up that from all indications would surpass any of the previous runs since the month of February, 1912. There was a total of 3500 head in up to an early hour and 43 cars estimated to arrive before the close of the day. Notwithstanding the heavy supply of horses received for the market supply there was an extra large aggregate of buyers on the market to deplete this supply, and the market was active at firm prices.

Heavy draft, extra.....	\$210@250
Heavy draft, good to choice.	175@200
Eastern chunks, ex. quality..	160@200
Eastern chunks, plain.....	100@135
Southern horses, ex. quality.	125@150
Southern horses, plain.....	50@75
Choice drivers, with speed..	175@275
Saddlers.....	150@250
Plugs .....	5@20

**MULES**—There were calls for nearly every type of a mule that was on hand, and this made the trade more lively than it has been in some time. Buyers were on the market for the quality kinds of mules, especially the cotton mule types, and these were the ones that found the best trade all the way through. There was a good demand for all the good quality kinds of animals and prices were on a good steady basis with last week.

16 to 16½ hands.....	\$150@275
15 to 15½ hands.....	100@235
14 to 14½ hands.....	65@150
12 to 13½ hands.....	50@125
Plugs .....	25@75

J. P. Vissering, Alton, Ill., has devoted 33 years to the production of Big Type Poland Chinas, and offers some splendid bargains in fall pigs and bred gilts.



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as high-priced American complete fertilizers contain. Your fertilizer should contain 4% of active nitrogen. Does it?

On land farmed for centuries, England raises 33 bushels of wheat per acre. We raise but 14. Europe imports 100% active Nitrate of Soda. You use dried blood, tankage only 60% to 70% active and you pay more for it.

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## Horticulture

### HANDLING THE BEAN CROP.

Field beans are regarded as a money crop in about a dozen states. While Michigan leads in acreage and bushels, New York is a fairly close second, with an annual yield of nearly one million and a half bushels, worth at the average price about \$2,500,000, says American Cultivator.

Of the New England states, Maine produces most field beans, raising more than a quarter of a million dollars worth per year. New Hampshire raises about 30,000 bushels, Vermont nearly as many, while only small areas are grown in the three southern states of New England. But the acreage tends to increase in all these states, indicating that the crop is reasonably profitable.

Its value varies less than some other products and the market is fairly steady. The crop is regarded as a semi-staple product, midway between the grains and the truck crops. It is more steady and reliable in the market than the truck crops and in many localities pays better than the grain crops, besides having the special advantage of flourishing on some soils that will not produce heavy crops of grain.

The pea bean is still the leading variety in New York and Boston markets, although Boston trade calls for a large quantity of yellow eye and red kidneys. While beans will produce fair crops on thin sandy land better perhaps than any other common crops, they will do correspondingly better on heavier soils and take very kindly to clay loam or loose stone soils. Like most other crops they do best on land lately in grass and clover. The peabean seems to flourish on lighter soils than the other kinds. They thrive on fertilizer containing phosphoric acid and pot-

ash. Cultivation is a simple matter. Shallow working tools should be used to avoid injury to the roots which quickly extend into the rows.

Harvesting on large farms is done by horse pullers, which take up two rows at once. Then the plants are forked into wing rows or small piles and left to dry out.

The waste beans are of considerable value for feeding stock. Poultry will eat them after an hour's boiling the waste beans and mixing them with grain. They make a very good winter ration in this way. The same process is used in feeding them to hogs, but they are not commonly used for other stock. Boston dealers in waste beans sell them at one cent a pound.

### ORCHARD AND GARDEN NOTES.

Vegetable and flower seeds should be purchased soon.

The Carrie gooseberry is one of the best for home use.

Get the hotbed sash and frames ready. It will soon be time to use them.

Send for catalogs and make selections early. Some seeds are scarce again this year.

Try high-priced novelties sparingly. Some are good, but many are worthless for you.

Start a few evergreens about the garden or yard. Blue Spruce and Black Hills Spruce are excellent.

Every home needs a strawberry bed as much as a garden. Senator Dunlap is an excellent variety.

Buy sweet peas in colors. Do not depend on mixtures. Straight colors are prettier on the trellis and it is easier to pick colors desired for bouquets.

Rhubarb roots dug last autumn may be put in the cellar now and forced. The shoots from these are very acceptable at this time of year.

Perfection currant gives large bushes but is not as prolific or hardy as some of the others. It is well worth growing in the home garden.

Do not invest heavily in new, high-priced fruits, plants or vegetable seed, no matter how highly they are recommended. Stick to the old, tried varieties that are doing well in your community.

Root-grafting of apples may be done now. Procure seedling roots and clions and try a few. Keep each variety well labeled so that there will be no question as to what they are at planting time.—LeRoy Cady, University Farm, St. Paul.

### AN OLD MAN'S ORCHARD.

Most assets of a farm are considered for their present benefit and not for their future good. The orchard, however, is one of the things on a farm that not only serves to bring money to the pocketbook for the present but is a boon to the old age of the farmer. It has been said by farmers who have had orchards that an orchard was a bank account and no man that ever owned an orchard ever discredits its benefits.

L. G. Stevens of Somerset county, Maine, is one of the farmers who declares that an orchard, though poor, is one of the most important parts of a farm. He is ready to say that apples from an orchard selling at one dollar per barrel bring good profit. Though the yield may be small the orchard pays, but Mr. Stevens also declares, that like anything else, though it may be paying, it pays best with attention.

Mr. Stevens has an orchard of 1800 trees. Some of them are just coming into bearing and others are 30 years old. He believes that an orchard should be cultivated every year from the time that it is set out until it stops bearing at the end of its lifetime.



## TOWER CULTIVATORS

Are the best for corn cultivation  
Are " " potato "  
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They avoid root pruning entirely  
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**STARK TREES** AT LOUISIANA, MO. SINCE 1816

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**STARK DELICIOUS** The Most Amazing Apple Production in Two Centuries (Trade-Mark)

Is fully described—its glorious record of twenty years in the American orchard is accurately given. No one with room for a single tree can afford to be without this marvelous fruit. Of exquisite flavor—large, brilliant, waxy red. The book is free. Write to Stark Bros. Nurseries and Orchards Co., Box 166, Louisiana, Mo.

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Grain, Clover and Grass Seeds,  
**CHAS. E. PRUNTY,**  
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### WHY NOT BUY FROM A RELIABLE HOUSE

CLOVER, TIMOTHY, RED TOP, BLUE GRASS,  
GARDEN & FLOWER SEEDS OF SUPERIOR QUALITY.  
Write for Catalogue.

## JUL. PETERSEN SEED & COM. CO.

709 Carroll St.

St. Louis.

His slogan is that one tree cultivated around it is better than a dozen trees without cultivation. He believes that profit enough is derived from cultivation of an orchard to pay for all the labor expended. He even goes so far as to say that grass should be kept entirely clear from the trees.

He raised in his orchard the Ben Davis apple, the Baldwin, the Farmer's Reward and the earlier varieties.

Mr. Stevens owns a large farm and does general good farming besides caring for his orchard. He declares that there is a good deal of satisfaction in knowing that every fall though the crops of annual rotation may fail there is the orchard though it may have a small yield yet it will furnish an income. He stated a short time ago that the hired man's pay could be assured if a man owned an orchard; that the farmer can be sure of some ready money each fall.—John E. Taylor.

### THINNING FRUIT.

An experiment made recently by the Utah Station calls attention to the importance of thinning the fruit as a means of producing the maximum number of first class apples. Eight-year-old Ben Davis trees with the fruit thinned to a minimum distance of four apples apart gave a net increase per tree of \$1.16 as compared with unthinned fruit. The Jonathan showed an increase of 30 cents per tree. The same Jonathan trees thinned in the same manner in 1912 gave a net increase of 71 cents per tree over unthinned trees. In practice the cost of thinning appears to be offset by the reduced cost in sorting when the fruit is packed.

More than one-fourth of all the sheep in the eleven states nearest the Pacific coast are grazed on the national forests.

### SEED CORN—Reid's Yellow Dent SEED OATS—New Kersen Oats

Strictly pure bred. We had the best twenty ears at State Corn Show in 1913. Also best single ear in the Canner Corn Contest. We also have Alsike and Timothy Seed. We guarantee our seeds to please you. Samples mailed free. F. M. RIEBEL & SON, Aransas, Mo.

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### FOREST NOTES.

The railroads of the United States use about 150,000,000 wooden ties each year.

The national forests contain water powers with an aggregate estimated capacity of 12,000,000 horse power, available for use under permit from the Secretary of Agriculture.

Much of the piling, wharf material and lock gates of the Panama canal are made of greenheart, said to be the most durable wood known for these purposes, which comes mainly from British Guiana.

The Western Forestry and Conservation Association will hold its annual conference about December 15. This year it will meet at Vancouver, B. C., and will give its main consideration to the problem of forest fire prevention and control.

## The Pig Pen

### WATER FOR PIGS.

The quantity of water fed to pigs that are grown and fattened for market, starting with the pig when it is 2 months old and having it in prime condition for market at 8 months of age, decreases gradually from 12 pounds to 4 pounds of water daily per 100 pounds of live weight. This does not include the water contained in dry feeds. The latest data shows that this should be slightly modified, as follows:

The amount of water at the beginning including that of the feeds, should be the same as for pigs that are to be developed for breeding purposes, namely, 13 pounds. But this should decrease to 10 pounds at 5½ months of age, and after this decrease to 5 pounds at 8 months of age, with the pig in prime condition for market. Thus the decrease is not in a straight line, as previously, but the quantity fed is relatively higher at about the middle of the feeding period.

### SANITATION FOR SWINE.

One of the subjects pressing upon the attention of the live stock grower is that of placing his live stock under sanitary conditions to maintain health and vigor. It is recognized that general sanitary conditions, good or bad, have much to do with the repressing or propagating of specific live stock diseases, just as it has become an accepted doctrine that cities and camps, or other places where large bodies of men are assembled, must be kept clean.

Probably good sanitary conditions are nowhere more necessary than with swine, for it is with respect to hogs that the idea has most prevailed that it does not make much difference how they are kept, and that they could thrive even amid the most filthy surroundings. There is no greater mistake than this, and the large annual losses of hogs prove it.

This does not mean that filth creates hog cholera at all, or that it is not a germ disease, as investigators say it is; it simply means that germ diseases are more prevalent, more malignant and more fatal when the sanitation is bad than when it is good. It is very much to the swine grower's interest, therefore, to maintain cleanliness in the hog quarters by some means.

How it is to be done it is not the purpose here to say. Different circumstances will require a different class of measures. Some swine growers succeed in keeping their hogs in good condition, as to cleanliness, by having small pens on runners, that they can move frequently; others clean thoroughly and often, and use disinfectants freely; some have quarters in different localities on the farm and move hogs from one to the other from time to time, cleaning the empty quarters before they are again occupied.

It is not pretended that men who take even the greatest precautions in respect to cleanliness escape cholera. It is believed that, when the disease does enter their herds, the loss is less than it would be if the herd were kept in unfavorable surroundings as to cleanliness. It used to be believed as that they are unclean in the sense that they enjoy and thrive amid uncleanness.

This is not believed any longer in any civilized country, as is proved by our immense home consumption, and

our annual exports of oats and hog products, that mount up close to 2,000,000,000 pounds. It is just as true as that they enjoy and thrive amid uncleanness.

We do not ask any grower to provide ideal and impossible conditions in this respect. We recognize the fact that the demands of economy place some limitation upon what he can do in regard to it. But we do advise him, for his own good, and for the sake of the swine industry, to do the best he can.—New York Farmer.

### POINTS ABOUT PIGS.

About the only way to stop the pig from stealing is to fill his mouth with corn or slop.

Big pumpkins make the pigs flourish. They will get to the inside of them very rapidly and eat to their satisfaction.

Foul pens are unhealthy. Clean out the pens regularly or remove the pigs to another that is clean and dry. It pays.

Be kind to the pigs. They will follow after you when you are carrying a feed basket. If they happen to upset you by running between your legs, do not kick them in the ribs. They were only after the grain that would otherwise have gone to waste.

High breeding is good, but high feeding is better. If the two are combined the pigs will be more profitable. They may grow tall and long, but corn and slops are essential to make their sides stand out with fatness.

Burn a pile of old cobs and chunks of wood in the pig lot, then sprinkle the ashes and charcoal with salt and watch the pigs go after it. If a predominance of charcoal is desired pour water over the fire before it has reduced the cobs and wood to ashes.

Keep the dog from running after the pigs. He may like to play with them, but he is apt to tear their hams, chew their ears and injure them in other ways. If the pigs get into the garden or fields do not try to keep them out by punishing them with the dog, but stop the cracks in the fence.

### PREGNANT GILTS' RATIONS.

At the Iowa Experiment Station they have found that good rations for gilts carrying litters are: (1) Corn 88 to 90 per cent; meatmeal or tankage containing 60 per cent protein, 10 to 12 per cent. (2) Corn, 75 per cent; finely cut clover or alfalfa, 25 per cent. (3) corn, 80 per cent; oats, chopped clover or alfalfa, 10 per cent; meatmeal or tankage, 10 per cent. For old sows the proportion of meatmeal or tankage may be cut down practically one-third to two-fifths and still give good results.

### VARYING RATIONS.

Some pigs require more feed than others, and it is not easy to average the daily ration to each. One-third pound of oats and two-thirds pound of ground corn is a good proportion, and a little bran or middlings may be added with a little oilmeal of either kind.

Feeding this carefully, the feeder will soon see how much should be given at a time; no more than they will eat is a good rule. Bran and middlings are best for brood sows to farrow, and a very little cornmeal, but ground oats may be added to the bran, about one-third of the latter.

Hogs more than 6 months old make less rapid gains when fed on corn alone than when fed on corn and a supplement in connection with bluegrass or timothy, but the gains made from the former ration are usually as cheap as from the latter.

**POLAND CHINAS** and Aberdeen Angus. We breed them large & smooth. Our friends made them famous. J. P. Vissersing, Box 8, Alton, Ill.

## The Shepherd

### SHEEP AND SILAGE.

A Western writer says that not long ago ensilage was looked upon by the sheep men as a more or less unsatisfactory ration for sheep. This was because the average sheep breeder did not know just how to prepare this valuable adjunct to successful sheep raising. In the first place, it was usual to cut the corn in a rather immature state than at present.

The result was ensilage overburdened with acidity, which was liable to act very disastrously on the sheep eating too freely of it. Another reason for acidity, mold and consequent losses was imperfect silos. They were anything but perfectly built; in fact, they were very imperfectly and unsatisfactorily built.

In the first place, up to within the past few years silos were no more air-tight (a leading essential in silo construction) than a sieve. Today things are different. Properly staved silos are good and all they are claimed to be, and cement silos are not only air-tight, but practically everlasting and absolutely air-tight if properly constructed.

With the modern silo and corn cut at the proper stage of growth or ripening, we have one of the safest and most economical rations known to modern sheep feeding.

### FEEDING AND WOOL.

The importance of good feeding for the growth of wool is understood by all experienced sheep men. Any neglect in the care of the flock will be followed by weak spots in the fiber of the wool. The more serious the neglect, the more effect upon the wool; it becomes weak and wanting in elasticity, breaking under pressure.

### PUT ON SHEEP.

The great value of sheep on the farm lies in their ability to utilize the roughages to advantage, their consumption of weeds and other waste products and the return they make to the soil in the form of manure. Even though prices were so low that, as a business in and of itself, sheep-growing did not pay, still every farmer ought to have upon his farm as many sheep as he can practically grow feed for.

### PASTURE SUBSTITUTE.

Where plenty of good pasture is not available, a grain ration of one-third each of old corn, oats and wheat bran is good for the sheep. It is not advisable to feed heavily on corn at this time, and especially on a new corn. Oats are a good feed for ewes and may be fed quite freely without any danger.

When oilcake can be purchased at a reasonable price, it will pay to feed a little of this, but not if one has to pay a high price for it. With oats and corn grown on the farm and wheat bran at a reasonable price, this is about as economical and practical a grain ration as flock-owners can feed at this season of the year.

### DIDN'T KNOW SHEEP.

"Now, Harold," said the teacher, "if there were eleven sheep in a field and six jumped the fence, how many would there be left?"

"None," replied Harold.

"Why, there would," replied she.

"No, ma'am, there wouldn't," persisted he. "You may know arithmetic, but you don't know sheep."—Sharples Salesman.

GO TO,

## WESTERN CANADA NOW

The opportunity of securing free homesteads of 160 acres each, and the low priced lands of Manitoba, Saskatchewan and Alberta, will soon have passed.

Canada offers a hearty welcome to the Settler, to the man with a family looking for a home; to the farmers son, to the renter, to all who wish to live under better conditions.

Canada's grain yield in 1913 is the talk of the world. Luxuriant Grasses give cheap fodder for large herds. cost of raising and fattening for market is a trifle.

The sum realized for Beef, Butter, Milk and Cheese will pay fifty per cent on the investment.

Write for literature and particulars as to reduced railway rates to Superintendent of Immigration, Ottawa, Canada, or to Canadian Government Agent.

Gen. A. Cook, 125 W. 9th St., Kansas City, Mo.

C. J. Brougham, 112 W. Adams St., Chicago, Ill.



## The Apiary

### BEEKEEPERS' CONVENTION.

The annual convention of the National Beekeepers' Association will convene at the Planters' Hotel in St. Louis February 17th, 18th and 19th, 1914. This convention is attended by beekeepers from all over the United States and Canada and also by beekeepers from foreign countries. The meetings are both interesting and instructive and no beekeeper should miss the opportunity to attend. All sessions are open to the public, and all beekeepers are invited.

I urge all members of the St. Louis Beekeepers' Club and all beekeepers of St. Louis and the surrounding counties to meet at my house Sunday, January 25th, at 2 p. m., to make arrangements for the welcome of the visitors.

The last meeting of the convention was held in St. Louis in 1904, during the World's Fair and had a record-breaking attendance. Let all beekeepers come forward and help to make this convention a great success.

ROBERT A. HOLEKAMP,  
President St. Louis Beekeepers' Club,  
4263 Virginia Avenue.

### THE COLOR OF ALFALFA HONEY.

Speaking of the color of alfalfa honey, Harry K. Hill says in the Western Honey Bee:

"I get at least three distinct shades of pure alfalfa honey during the year. There is no possibility of doubting this, as I live in what might be termed an isolated position. This portion of the valley was until recently, and is for the greater part yet, devoted to grain raising. At the present time, patches and spots in this great stubble field have been put under irrigation and planted to alfalfa. Alfalfa is thus the only source of nectar to be had in these irrigated districts."

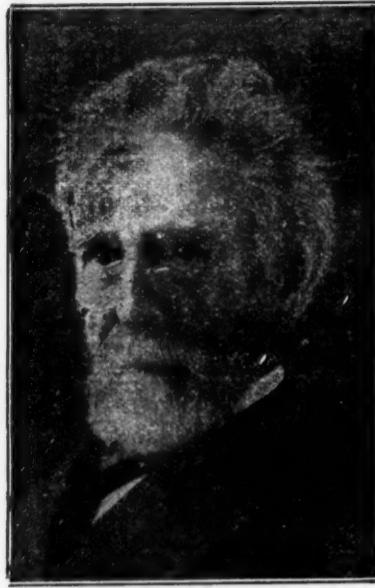
"The honey taken at the first extracting is much darker than that taken at later extractings, it becoming gradually lighter as the season advances until the last honey taken is quite light. Thus you see that honey can be and is different in color, not necessarily from different localities, but from the same plant in the same season. I have heard this explained by blaming the condition of the atmosphere but have never quite convinced myself on this point. I might say here that I have never noticed any difference in the flavor of the honey regardless of the color."

There is no malaria in the Barbados, because of the absence of mosquitoes, which are eaten while still larvae by the beneficent profusion of little fish called "millions."

# COLMAN'S RURAL WORLD

Founded by Norman J. Colman.  
Published by  
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August Frank, President.

WILLIAM N. ELLIOTT, Editor.  
C. D. LYON, Associate Editor.



Norman J. Colman,  
First U. S. Secretary of Agriculture.

**COLMAN'S RURAL WORLD** was established in 1848 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a clarion of advanced agriculture this journal has attracted nation-wide support, and is to-day held in highest regard by thousands of intelligent and discriminating readers.

**COLMAN'S RURAL WORLD** strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.

**COLMAN'S RURAL WORLD** is mailed postpaid to any address in the United States or island possessions for one dollar per year or three years for two dollars. All subscriptions payable in advance. Remit by draft, registered letter, postoffice or express money order. In changing address give old and new addresses.

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The deplorable conditions existing in Mexico bid fair to come to a speedy termination by the elimination of Huerta.

The old-fashioned New England habit of whitewashing everything, from the front yard fence to the stable, at least twice a year, was a most excellent one, and is one of the old-time customs which the present generation might well adopt.

Sunlight is one of the best and cheapest disinfectants at our disposal, and we should take advantage of this fact at every opportunity. In the construction of barns or shelters of any kind for animals, ample provision should be made for the admission of the maximum amount of sunlight.

If Kansas were divided into highway districts and an engineer employed for each district, sixty-five men could do the work now being done by county engineers and county surveyors and nearly a million dollars a year could be saved the state by the improvement in the system. W. S. Gearhart, state highway en-

gineer for Kansas, proposed this plan at a meeting of the Kansas Engineering Society in Topeka.

It is not enough, however, that the county agent be simply a "common carrier of ideas" from farmer to farmer. He is to be a go-between to gather facts and experiences everywhere and to interpret these facts and experiences in the light of local conditions and needs. Then he is to go a step farther and carry the experience and the ideas of the farmers themselves to the Department of Agriculture and the agricultural colleges; for these institutions are as much in need of the farmer's wisdom and an accurate knowledge of the farmer's problems as the farmer is in need of the information which agricultural institutions can give.

The Field Studies and Demonstration idea is not complete without the idea of active and mutually helpful co-operation between the farmers themselves and all the public agencies intended to promote agriculture and agricultural education. The farmer needs the facts and the explanations which the scientists can furnish, and the scientists and teachers are no less in need of the facts and the point of view of the farmers; they need to learn the superstition which farmers call common sense, that wholesome wisdom that is the essence of the thought and experience of generations of men who have made good through work and thought and thrift and unconscious adaptation to circumstances.

A fundamental idea of the Field Studies and Demonstration movement was well expressed at Alamosa, Colorado, when Mr. James A. Kelley, of Monte Vista, described the county agent as a "common carrier of ideas." Mr. Kelley's own experience as a farmer illustrates the point. He had conceived the idea that the Canadian field pea would restore the productiveness of the wheat fields of the San Luis Valley just as alfalfa had restored that of the wheat fields of Northern Colorado. Putting his idea to the test, he found an immediate response in increased yields. But other farmers were slow to adopt the Kelley method. It can be easily understood that a competent and energetic county agent would have introduced the field pea in all parts of the San Luis Valley in a fraction of the time in which its cultivation spread from Mr. Kelly's farm.

## ELECTRICITY AND RADIUM IN AGRICULTURE.

Mr. T. Thorne Butler recently gave an interesting lecture before the British Royal Society of Arts on electricity and radium in agriculture. He said that a great deal of experimental work was going on now with radioactive material, which gave in some cases such remarkable results that radium must be taken into serious consideration from an agricultural point of view. The residues resulting from radium extraction, which contained only a milligram or two of radium to the ton, and were at present regarded as of negligible value, were sufficiently active to produce marked effects on germination and greatly to increase the size of the plants and crops. In some cases an increase of 300 and 400 per cent had been obtained. The stimulating effects of a new type of combined high-frequency and positive electricity apparatus on young chickens was also described. Not only was the loss of the young birds during the first few days after hatching in incubators minimized, but the chickens grew at more than twice the normal rate, thus costing less than half the usual amount to grow.

## HEALTH OF SCHOOL CHILDREN.

The report for 1912 of the medical officer of the British Board of Education has just been issued. It contains an exhaustive account of the measures which are being taken throughout the country to safeguard the health of schoolchildren. Uncleanliness still occupies a large share of the time and energy of the officers of the school medical service, but the returns show a decided and progressive improvement, and the grosser forms of uncleanliness are now rare as compared with the conditions that prevailed when medical inspection was instituted in 1908. There are about six million children in the public elementary schools. About 10 per cent suffer from serious defects of vision. Among the causes given are heredity, early eye-strain, defective lighting, infectious diseases and neglect in obtaining early medical advice. From 1 to 3 per cent suffer from defective hearing; from 1 to 3 per cent have suppurating ears; about 10 per cent have adenoids, inflamed tonsils or enlarged cervical lymph-nodes requiring surgical treatment; 1 per cent have ringworm; 1 per cent suffer from tuberculosis of readily recognizable form; from 1 to 2 per cent have heart disease; from 30 to 40 per cent have unclean heads or bodies, and more than half the children are in need of dental treatment.

In five directions school hygiene has undergone evolution. There has been a steady improvement in the routine work of medical inspection, and ancillary undertakings.

There is less "leakage," more following up and more accurate clinical examination. Secondly, there is fuller differentiation of abnormal children and a tendency on the part of authorities to modify the school curriculum in their behalf. Much time and labor are now being devoted to mentally defective, tuberculous, stammering and frail or retarded children. Thirdly, there has been an enlargement of the conception of the sphere of influence of the school medical officers. Education authorities are finding that though they have been appointed in the first place merely to inspect children, they may fill a very useful place in the educational system. Fourthly, there has been a marked advance in respect to medical treatment both in quality and in quantity. Lastly, the intimate relation between school hygiene and education is becoming recognized and its application understood. The equipment of the school, the character of the teacher, the importance of physical exercise and manual work, the relation of the leaving child to the national insurance system, to industrial employment, to further education in secondary schools, and to its own home life, are now receiving attention.

## EYESIGHT AND AUTOMOBILE DRIVERS.

Owing to the rapidly increasing numbers of automobiles, used for business as well as pleasure purposes, every state should require that all applicants for a license to drive a motor vehicle pass an eyesight test. All railroad and many electric car-line companies require such a test. Yet, in the great majority of states, the prospective driver of an automobile need only affirm in his application that he has no physical or mental infirmities. When one stops to consider that a railroad engineer drives over a steel track, guarded by signals and watchmen, and over a route with which he is thoroughly familiar, whereas the autoist drives over any road he chooses, not protected by lights and signals, and in some cases traveling almost as rapidly as a locomotive, it is plainly imperative that he possess as good sight as the man in the engine cab. If one is highly defective the field of vision is greatly impaired and the driver less able to maneuver his car in an emergency. Paris, Munich and other European cities have seen the necessity of an examination of the eyes of all taxi-drivers and are strict in the enforcement of this protective measure. It is more likely that defective vision is next in order of frequency to the overuse of alcoholic drinks as a cause of automobile accidents. We can and should protect pedestrians and drivers of vehicles from injury to a much greater extent than we do.

The importance to the farmer of having an economical farm house has been emphasized by the farm architect of the Department of Agriculture, who states that the mental and physical fitness of the laborers both within the house and in the fields are vitally affected by the building that affords the family shelter. The average American farm house has failed to share in the improvements that are every day being made in agricultural conditions and, according to the architect, is a rebuke to our boasted civilization. Relatively, he says, the housewife of a century ago with her fireplace cooking and log cabin was better provided for than is the housewife today.

The most important building on a farm is the home. The health, comfort and happiness of the family are dependent upon its construction and equipment, and unless these matters are looked after the sanitary dairy barn or the economically constructed buildings for stock are of little value. Happiness and contentment in the family are as essential to efficient service as improved tools and outbuildings.

Although the housewife spends, in many cases, a life-time in her "workshop," the kitchen and the family rooms, she is not, as a rule, capable of planning a house in the highest degree serviceable and comfortable without assistance. Her help, however, is essential to the farm architect, as the result of his plans most vitally concerns her.

One of the most important details regarding the average American farm house is that it must be inexpensive. The average annual net income of a farmer today, after deducting five per cent interest on his investment, is less than \$400. This does not mean that the houses may not be attractive. They may, if intelligently planned with the help of vines, shrubs and trees, become the prettiest spots on the landscape, and more beautiful and inexpensive than the crowded city houses.

The tenant-house problem is growing in importance as can be seen from the fact that the number of rented farms increased by more than 324,000 during the last decade. Today little more than half the farms in this country are operated by the owners.

The possible economy in household labor and the conservation of the strength of the housewife are two important factors to be considered in the construction of a farm house. Pleasant and comfortable farm houses tend to hold families together; but the cheerless, unlovable and insanitary houses drive boys and girls to the cities. Investigation of prisons, insane asylums and houses of correction seem to prove the fact that the sins which account for the existence of these institutions are often bred in inadequate and unhappy farm homes. So this social aspect of the problem is considerable.

**RAILROAD FACILITIES.**

**Editor RURAL WORLD:** Regarding the following information asked for, it may be that one subscriber may not be able to give all the information asked for, but he may give a part of this desired information. What is the greatest distance from a railroad station that a farm in the Ozarks could be located and the hogs raised on such a farm driven to the railroad station for shipment without losing any. How long would it take to drive these hogs to the station? How much and at what time would they rest during this drive? How long a rest should they have on arriving at station before being loaded in the car?

Also if any one has made a success by clearing timber land and immediately sowing it to alfalfa? Let him tell when he cleared land what preparation he gave land, when did he sow seed and amount of seed per acre; what sort of a nurse crop, if any, and how many years did stand of alfalfa last, if sprouts troubled later, etc.

C. M.  
Missouri.**NOTES FROM AN OHIO FARM.**

By C. D. Lyon.

I always make this letter of a personal nature, having so many warm friends among our readers.

We have been having some sickness. A cousin who lives with my sisters in one of the houses on the farm has been dangerously ill for three weeks with liver trouble, with the chances greatly against him as I write this.

Wife has also been sick with stomach trouble, but it is not serious, and she is better again. My old German neighbor is slowly wearing out with hardening of the arteries. He is very matter of fact about it when talking about his troubles, and I had to laugh at him a little the other day when he said he hoped that he would not have to go while the weather was so bad.

We are not sowing much clover grass seed this spring, but would not hesitate to sow red or alsike clover, timothy, orchard grass or red top any time now, regardless of the moon. In my opinion grass or clover seed sown in January or early February stands a better chance than that sown in March, in that the freezing and thawing tends to put the seeds under, and they will not come up early enough to be killed by late frosts.

If I wait until March, it is my rule to wait until April, to use an Irishism, and then to harrow the seed in. By this plan I have often succeeded when others failed.

The tobacco markets have broken to some extent, and prices are two cents lower on some grades, in spite of the crop only being 60 per cent of an average one, and the grade low. Last week I saw some of the lowest grade tobacco I ever saw expressed for sale, and it brought 4 cents per pound, while other tobacco of fair quality only brought 7 cents per pound. Quality really makes little difference to the manufacturers, as they can sweeten and flavor any kind of stuff so as to make it salable. The lowest grades go into what is known as "package scrap," such as laborers smoke and chew, and while they do not get any more weight than in plug of some grades, they get a big bulk.

We had quite a cold snap January 12 and 13, the mercury getting down near zero, and as we had had pleasant weather it seemed 20 below.

I have two sweet clover queries from Missouri, and suggest that the

writers address Secretary of Agriculture, Washington, D. C., asking for bulletin on the subject. We are willing to answer as many sweet clover questions as is possible through the RURAL WORLD, knowing its value well, but have published quite a mass of information regarding it in the past few months.

Died January 12, 1914, John E. Dugan, aged 54 years. His mother and my mother were cousins, and for the past seven years he had made his home with my sisters at the old homestead. He was a tobacco handler for some years, then learned the trade of painting, and was a good workman. When quite a boy his father died, and for many years the care of his mother fell on him. John never married. The large concourse of people who followed him to the little graveyard on the hill proved that he had many friends.

**CHERRYVALE, KANS., NOTES.**

**Editor RURAL WORLD:** As others have gotten through rejoicing I will write. It was interesting to read the letters from so many different parts of the country published in the RURAL WORLD after the long drouth. A general rejoicing, the drouth was forgotten and each was laying plans for the future. What a happy world this would be if we would always do that way. It is an ill wind that don't blow some good. For 38 years I had never left my farm for stock water, but I had to haul 12 barrels this summer when my water began getting low. I dug out a spring that gave me water for 120 sheep, 5 horses, 4 head of cattle; but I lacked water for one horse and three mules; then I dug out a seep on the side of the hill at 8 feet and got plenty of water and to spare. I have them walled up now and am ready for the next dry spell. The next thing was the feed problem; the drouth had cut the forage short, both hay and corn. I cut everything that was eatable, for I have found out that weeds make good feed when cut at the right time, even cockle burrs, though I have none of them; in 1901 I bought a corn field where the cockle burrs were higher than the corn in some places, and I cut it with a corn binder, and in shocking threw out the bundles that had no corn in, and when I commenced to feed it I found out that I had thrown away a lot of good feed for horses, cattle and sheep eat the cockle burrs; they were cut just when the burrs commenced to form. I took time by the forelock this year and commenced to cut corn as soon as it was ready. By the time it was all ready I had it all in the shock and tied close to the top. When I got all my feed up it looked too small to feed all my stock after I had sold what I thought I ought to, so I bought a No. 10 feed cutter. Now it is the 18th of January and I have fed all the feed my stock would eat up and they are doing well, and I have four-fifths of my corn fodder left and two-thirds of my hay. I am feeding a mixture of sheaf oats and alfalfa hay and cut corn fodder to all my stock except the sheep. I feed them cut fodder sprinkled with a little cotton seed meal at night, in the morning I feed cut sheaf oats. There is practically no waste; the sheep leave a little which I take and put where the horses and cattle can get it in the daytime, it having a little cotton meal on it they eat it all up, so I am getting through the winter with one-third less feed than usual. I don't think I will ever feed corn fodder again without cutting it, so I am getting some benefit from the drouth.

H. BELLAIRS.

**ARLINGTON HEIGHTS (MASS.) NOTES.**

**Editor RURAL WORLD:** It is surprising to find practically no grit in the Boston market that looks like anything except crushed marble or granite. The manufacturers still cling to the old idea that grit furnishes the hen with teeth, that it must be sharp to grind the food. If it did it would grind the gizzard as well. We know that aside from some slight mechanical action in carrying the digestive juices through the food bulk, the function of grit is to furnish silicates to make the framework of the feathers, which when the animal matter is dissolved show a framework of pure glass. Besides this function fowl absorb from the dissolving grit the mineral salts they need. Iron, lime, magnesia, fluorides, phosphates, etc., and grit furnishes this in abundance. In its absence those salts must come from the feed, which are none too rich in them. This being the case, the man who furnishes grit to the poultry raiser should give some analysis of its ingredients, so that a balanced ration may be furnished. Oyster shell, which should always be before both chicks and fowl furnishes lime in abundance, and ground phosphate rock which can be bought from any fertilizer house for about \$8 per ton will furnish an abundance of phosphates and make an excellent absorber. Its use on the dropping boards doubles the value of the manure.

Sprouted oats are now such a well recognized food both for succulence and semi-digested food value, that poultry raisers should be warned of the danger of musty or mouldy oats, giving rise to disease of the glands. All oats should be sprouted after soaking for 48 hours on wire bottomed trays, spread out not over two inches thick and wet with warm water twice daily and then stirred up until sprouts start. The wire tray allows the moisture to drain off and air to circulate through the sprouting mess. Most feeders allow the oat sprouts to become too long before feeding. This is not only a waste of feed, but the indigestible root that formed by the late growth is lost. Be careful to demand of your dealer unbleached oats for sprouting. The market is full of sulphur-bleached oats, which will sprout, as the germ has been killed, or only a small percentage will sprout, entailing a loss. Demand unclipped, natural oats.

C. G. BROCKWAY.

**2,240 FARMERS AT COLUMBIA.**

The attendance at Missouri Farmers' Week in Columbia, January 12 to 16, 1914, was 2,240. In 1913, the best year up to that time, the enrollment reached 1,587. Since the establishment of Farmers' Week by the State Board of Agriculture, a number of years ago, each year has witnessed an increased attendance. A few years ago the College of Agriculture also inaugurated a special four-days' short course in Agriculture, which has become one of the valuable features of Farmers' Week. From 3 to 5 o'clock each afternoon association meetings were held. The associations represented were: The Missouri Saddle Horse Breeders' Association, Missouri Cattle Feeders' Association, Missouri Association of County and District Fairs, Missouri Farm Management Association, Missouri Draft Horse Breeders' Association, Missouri Women Farmers' Club, Missouri Home Makers' Conference, State Dairy Association, Missouri Corn Growers' Association, Missouri Country Life Conference, Missouri Duroc Jersey Breeders' Association.

The evening program included music and popular addresses. On Friday night was held the annual farmers' banquet, under the supervision of the College of Agriculture. Gov. Elliott W. Major and other distinguished guests were present.

**INCOME TAX RECOGNIZES FORESTRY.**

Foresters and lumbermen see in a decision of the Treasury Department in regard to the administration of the income tax a strong argument for forestry. As they interpret the opinion of the Treasury officials they understand that no timber lands shall be subject to the tax until the timber is cut and marketed and that then the profit only will be subject to an income tax assessment. In other words, all costs will be deducted before the tax is levied, and these will cover the cost of growing the timber, including the cost of planting where necessary and of protecting the growing crop from fire and other depreciation.

**PRIZE HAM TO GOVERNOR.**

In the Missouri Farmers' Ham and Bacon Show, conducted by the State Board of Agriculture, and held in connection with Farmers' Week at Columbia, the following awards were made: Hams—W. H. Thomson, Columbia, R. F. D. 10, first prize, \$25; J. E. Ballinger, Columbia, R. F. D. 4, second, \$15; H. G. Windsor, Bonneville, third, \$10. Bacon—James Bachler, Fredericktown, first, \$25; Walter J. Bachler, Fredericktown, second, \$15; A. J. Caldwell, Columbia, third, \$10. The judges were T. B. Ingwersen, Bowling Green; Mrs. Wallace Estill, Estill; W. C. Hutchison, Jamesport. Mr. Thomson, who exhibited the first prize ham, presented it to Gov. Elliott Major. The committee on awards recommended that the show not only be continued, but enlarged, suggesting that classifications be made for country shoulders and sausage. Now is the time for Missouri farmers to lay aside choice hams for next year's show.

**15,000,000 PAGES OF PRINTED MATTER.**

At the annual meeting of the Missouri State Board of Agriculture held in Columbia recently, the report of W. C. Wilson, the retiring secretary, showed that during the year 1913 the Board had published twelve monthly bulletins, a year book of more than 600 pages and other printed matter totaling 15,495,000 pages. This represents by far the largest output of bulletins and other matter in any one year of the history of the board, yet the demand for many of the publications far exceeded the supply. The board now has a regular mailing list of almost 10,000, besides supplying thousands of special requests.

**BOYS AWARDED CORN PRIZES.**

The first prize of \$20 in the boys' corn-judging contest, held by the Missouri Corn Growers' Association at Columbia, was awarded to Robert Hook of Hall, Mo. His score was 93. The other awards were: Second prize, \$10, James Conner, Kirksville, 87; third prize, \$5, Harry Landis, Hannibal, 84; fourth prize, \$2.50, James Briscoe, Oakwood, 81; fifth prize, ribbon, Nelson Russell, Chilhowee, 79.

There were fifty entries, three times as many as in any previous contest, according to T. R. Douglass, secretary of the association. The winning scores compared favorably with the scores of former contests. This was the eleventh contest.

## Home Circle

### THIS IS WHAT TAKES COURAGE.

It takes great strength to bring your life up square  
With your accepted thought and hold it there,

Resisting the inertia that drags back From new attempts to the old habit's track.

It is so easy to drift back, to sink; So hard to live abreast of what you think.

It takes great strength to live where you belong  
When other people think that you are wrong,

People you love and who love you and whose Approval is a pleasure you would choose.

To bear this pressure and succeed at length In living your belief—well, it takes strength

And courage, too. But what does courage mean  
Save strength to help you bear a pain foreseen!

Courage to undertake this lifelong strain  
Of setting your's against your grand-sire's brain;

Dangerous risk of walking lone and free  
Out of the easy paths that used to be,

And the fierce pain of hurting those we love  
When love meets truth and truth must ride above?

—From "Heroism," by Charlotte Perkins Gilman.

Written for the RURAL WORLD.  
RING IN THE NEW.

By C. D. Lyon.

The order has gone forth: "On the night of November 14, 1914, let there be a light in every schoolhouse in Ohio." And the idea is for parents, teachers and pupils to meet and discuss improvement of our schools.

Over here in Ohio we are doing a whole lot of rather spectacular things, and while I stand for any movement tending toward progress in any direction, I am not at all sure about this.

When I started to country school in 1862, at the old stone schoolhouse, built in 1814, the house was heated by a wood stove and the wood was cut and hauled by the patrons of the school, each one usually sending a cord.

There were fifty pupils, ranging in age from 6 to 24 years; home-made wooden benches, one writing-desk by the wall, and a teacher's rough table.

The books were fairly uniform. Mc-Guffey's Speller and set of five Readers; one primer class and one in the old "blue-back" speller, as some parents did not like the new-fangled one; two Ray's Arithmetic classes, and the text-books better than the present ones; one glass in geography and one in Pinneos' Grammar.

To sum up, we had the A B C class, spelling, reading, arithmetic, geography and grammar, with a little writing as the teacher found time.

The old system developed good spellers and readers and fair penmen, with arithmetic pretty good as far as the "single rule of three," but so far as geography and grammar were con-

cerned, the best of students got but a trifle of them.

I have tried to get a full list of the studies in our schools of today, but will probably miss a few. Spelling, reading, arithmetic, geography, grammar, civil government, physiology, hygiene, literature, effect of narcotics and intoxicants, history, writing and agriculture. Thirteen now against six or possibly seven fifty-one years ago, and our teacher in 1913 has seven pupils against a roll of forty-five to fifty-five in the same district, 1862-1867.

Something has to be done in the way of improving our schools, as the attendance has grown so small that the per capita cost of tuition is very high, and the present movement looks toward the consolidation of three or four districts into one, the building of a central schoolhouse and the transportation of the pupils from their homes to the schools by wagons.

This is opposed by many people, but those opposing it are not at all well informed as to the operation of the plan in many places where it has been adopted, for it is eminently successful, and after the initial cost, new school buildings and the like, it is cheaper and more satisfactory than the old plan.

Teachers oppose it, for it will throw almost 75 per cent of them out of a job.

Let those who live where the centralized school system has been adopted tell us how they like it.

Written for the RURAL WORLD.  
"OLD THINGS—NEW WAYS."

By Janetta Knight.

We often get so used to doing things the old way that trying new ways is a task too hard to be undertaken.

Housecleaning is a science instead of that despised time of old.

Every up-to-date home has painted or oiled floors, also woodwork varnished.

I was an eye-witness to a house-cleaning where the lady of the house received callers, entertained at dinner. There was no confusion—just the silent moving about of the help.

One room was cleaned at a time; curtains were taken down and out, shaken good and then hung upon the line to air.

Bedclothes were put to air; the mattress was carried to the porch, where it was given a good beating.

The pictures were taken from the wall, dusted, and set in the closet. A clean white cloth was pinned over the straw of the broom, to wipe the walls. (A better way is to make a bag of cheesecloth or other soft domestic, just fitting over the straw, with a drawstring to tie firmly about the handle. Several of these will be needed. They can be laundered and laid away for future use.)

Wipe the walls and ceiling; sweep the floor.

Wash the window glass, using five drops of coal oil in a pan of clear water. They will dry in a few minutes. Rub until clear with soft domestic.

With a cloth go over the wood-work, and furniture with naphtha furniture polish. This makes it look as if just varnished, removes scratches, also the flyspecks, should there be any.

Cleaning the floor was easily and well done with gasoline making the cloth quite wet, going over all parts

of the floor. This removes the dust from the grain of the wood and does not leave streaks. The floor looks as though just re-oiled.

Go over all articles of furniture with the polish, and you are ready for the rugs and curtains. Replace mattress, make the bed, hang the pictures—one room is thoroughly cleaned.

Two bedrooms can be so cleaned in a forenoon.

The library was cleaned in the same manner, only the furniture was removed to allow the cleaning of the large rug with the vacuum cleaner.

The hall, parlor, dining room and kitchen were cleaned another day in the same quiet, effective way.

Written for the RURAL WORLD.  
WHAT TO DO FOR SICK PEOPLE.

By Early Alice.

Dear little Christmas bride, did you ever have the care of a sick person? Would you know what to do in the black midnight hours if husband were to be taken suddenly ill? I'll tell you my remedy for many ills: hot water.

For vomiting, give hot salt water. For sore throat, gargle hot salt water. For a severe pain, cloths applied that are wrung from water hot as can be borne.

For a cough, hot cloths applied to the chest. For a bad cold, place the feet in foot-tub of hot water.

For high fever, if threatened with spasms, apply cold wet cloth to head, hot wet cloth to stomach and place feet in water very hot. Rub dry with rough towel and apply alcohol or some stimulant by pouring into palm of hands and rub the limbs if patient has symptoms of heart failure.

For a severe pain, there is nothing like rubbing just with palms of hands.

Never give strong drugs except where directed by a physician. When a doctor is called to see a patient, tell the doctor exactly what has been given, also what was eaten at the last meal.

Epsom salts should be given the first thing, to clear the stomach of any undigested food. Often the simple home remedies are all that's needed and a doctor bill is saved if the ruling head knows what to do in time.

Written for the RURAL WORLD.  
SUGGESTIONS FOR THE HOUSEHOLD.

By Nellie Arnold.

I wonder if it was an omission of mine or an error with the typist that the cracker-jack recipe was misleading? This, however, is the recipe as it should be: 1 tablespoonful meat fryings or butter, 1 tablespoonful sugar, 2 tablespoonsful popcorn, placed in frying-pan and popped quickly. Do not use more corn or the first will burn before the last is popped.

How many housekeepers save large tin cans like 3-pound coffee cans? I save all of these and other similar ones. I remove the paper, wash and dry them, and then when I paint my range with indestructible aluminum enamel I paint those cans also. Then I stencil in black the name of contents of cans, such as rice, rolled oats, coffee, raisins. I use indestructible aluminum, as it is better. The light color on the range makes cooking on a rainy, dark day a pleasure instead of a worry.

I keep those cans on a shelf near the range and cabinet, also a size smaller containing soda, corn starch and baking powder. They look so bright and clean they are really an ornament and relieve the kitchen cabinet of part of its burden.

I have room on the shelf for my cook books also.

Beneath the shelf are hooks from

which hang kitchen scissors, funnel, strainer and some other articles not convenient to keep in the cabinet.

A small kitchen pin-cushion hangs at one end of the shelf, with two spools of thread on hooks or nails above it. There is often a call for a needle and thread in a hurry and this saves a trip to the sewing room.

Written for the RURAL WORLD.

A TOUCHING LETTER.

By Mrs. Emma Wilson.

The letter by D. B. Phillips, "My Mother," brought tears to my eyes. Being much interested in the welfare of my son's life here and hereafter, will I have to pass out of this life before the mother's influence is appreciated?

Mrs. J. T. Mardis hopes we were happy Christmas. My only brother, J. Sam Brown, having just passed away, cast such a gloom over me I could not be happy.

C. D. Lyon, in a letter in last issue, spoke of Champ Clark retaining his good judgment and common sense. I should expect no other report of him. It was a characteristic of the man to cause people to feel at ease. I was a pupil of his wife, Miss Jene Bennett, in Louisiana, while Champ Clark was assistant principal of the school named for my brother, "J. Sam Brown."

One of the best Christmas gifts we received this year was COLMAN'S RURAL WORLD, sent us by our brother-in-law and your contributor, George O. Wilson.

HINTS FOR THE WOMEN.

When we know that our thoughts are the arbiters of our fates, how carefully we should cultivate our minds!

So many women fail to realize the importance of cultivating their minds.

In our progressive age, this is as absolutely necessary as the cultivation of the flowers, the garden or the care of the house.

There was a time when women were not allowed to read, to say nothing of writing and talking in public.

In the last century, in civilized England, Harriet Martineau and Jane Austen covered their writing with their sewing when visitors came in; writing was unwomanly.

There was a time, too, when it was said a woman should leave her house three times; when she is christened, when she is married and when she is buried.

But times have changed, public sentiment has changed and women should avail themselves of the wonderful advantages offered them in this day of progressive intelligence.

By continuous efforts we are improving our recipes, our sewing, our flowers, but we are neglecting our intellects.

Time spent entirely in one's own home attending to domestic affairs makes those affairs seem more important than the affairs of the nation and restricts the mental capacity.

RESOLUTIONS—THEN WINGS.

I'm swearing here and now a fire-proof New Year's vow: I pledge my name and modest fame to sell my mongrel cow.

Resolved: A war on weeds. No more shall thistle seeds sow far and wide the countryside like new freakish creeds. With pick and ax and hoe forth to this war I'll go, and not return until I burn all pesky weeds that blow.

I am resolved tonight the Hessian fly to fight; I'll get his goat and cut his throat, and feed him dynamite, and when his goose is done, his fam-

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# Blood Medicine

That originated in a famous doctor's successful prescription, that is made from the purest and best ingredients, that has a record of relief and benefit believed to be unequalled the world over—such is HOOD'S SARSAPARILLA.

I'll on the run, the middlemen as best I can I'll fight till set of sun.

My horses shall have care this year. The old gray mare I will not beat nor harshly treat, nor in her presence swear.

I'll treat my hired man the very best I can. To cuss him blue will never do—I'll use a wiser plan.

Now, hear me, farmers all and merchants within call: I'm going to make my own son, Jake, my partner here next fall. He's worked just like a slave for years and helped me save. He's helped me make my pile, has Jake—he and brother Dave. But David went away. I guess he's gone to stay, and since he went I'm not content. I miss him every day.

Resolved: I will not growl nor grouch around and howl when my wife blows 5 cents for clothes. I will not even scowl.

New thoughts of many things the coming New Year brings, but if I keep these rooted deep, next year I'll have some wings.—Charles B. Driscoll, in the Farm Magazine.

## ESAU AND BILL.

Esau sawed wood, Esau Wood would saw wood. All the wood Esau Wood saw, Esau Wood would saw. In other words, all the wood Esau saw to saw Esau sought to saw. All the wood Wood would saw! And, oh, the wood-saw, with which Wood would saw wood.

But one day Wood's wood-saw would saw no wood, and thus the wood Wood sawed was not the wood Wood would saw if Wood's wood-saw would saw wood. Now, Wood would saw wood with a wood-saw that would saw wood.

So Esau sought a saw that would saw wood; and one day Esau saw a saw saw wood as no other saw would saw wood. In fact, of all the wood-saws Wood ever saw saw wood, Wood never saw a wood-saw that would saw wood as that wood-saw Wood saw saw wood; and so I saw Esau Wood saw wood with the wood-saw Wood saw wood.

Bill had a bill board. Bill also had a board bill. The board bill bored Bill, so Bill sold the bill board to pay his board bill. So after Bill sold his bill board to pay his board bill, the board bill no longer bored Bill.

At their annual conference in London the Fabian Society adopted a resolution protesting against the neglect of the government to take action upon the reports of the late royal commission on the poor law, and urged the immediate necessity for legislation to prevent the causes of chronic destitution, and to establish a national minimum standard of wages and conditions of employment. The mention of wages brought up the vexed question of the rates of pay for women as compared with men, and a resolution was finally adopted to the effect that in determining all minimum wages the principle should be that of equal rates of pay for equal work, irrespective of sex.

## TRIED RECIPES.

Since the days of Louis XIV., the French have been famous the world over for their cookery. The recipes given here illustrate a few of the devices by which a French cook produces her effects, and show how she makes palatable and inexpensive dishes from the simplest materials.

### Potage With Herbs.

Hash very fine some chervil, white beet and sorrel. Let it boil a few minutes in salt water. Just before serving add a large piece of fresh butter mixed with the yolk of an egg.

### Eggs Dijonnaise.

Butter well some small paper boxes and put them for a minute in a hot oven. Break carefully in each box an egg. Season with salt and pepper. Just before serving, powder with finely hashed ham and a little tomato sauce.

### Carrots.

Cook the carrots in water. Drain them. Melt some butter in a pan, put in the carrots, and turn them for some minutes. Sprinkle with flour, still turning them. Add a glass of soup stock, an onion, a little each of chervil and parsley. Cover the pan and cook twenty minutes on the side of the stove. When cooked, take away the onion and thicken the sauce with the yolk of an egg and butter.

### Lettuce au Jus.

Cook the lettuce heads in slightly salted water ten minutes. Drain them, and, making an incision in each head with a knife, introduce a little salt and pepper. Then put them in a saucepan with carrots, onions, parsley and chervil, and just cover with water. Add a lump of butter, a little salt, a clove, and cook two hours. Before serving, add a little cream mixed with the yolks of two eggs.

### Timbale Milanaise.

Boil half a pound of macaroni in salted water; pour off the water, and let the macaroni drain. Then put it in a large pan with a large lump of butter, some grated cheese and pepper. Meanwhile cook half a pound of cut up mushrooms in butter, and add to the macaroni with two slices of ham cut in pieces. To finish, warm four spoonfuls of thick tomato sauce or ketchup and pour it in the timbale.

## SCHOOL DAYS.

During school life boys and girls pass through the most critical period of their existence. The boy grows into young manhood and the girl into young womanhood. Little do they realize how much this means and the value of precious passing hours. They do not, they cannot understand themselves nor the strange experience through which they are passing. They need the wise counsel and encouragement of loving parents and teachers more than at any other time, writes Edgar Marvin in Macon Times-Democrat. One day is full of sunshine and another full of shadows. Nothing helps more than examples constantly held before the mind of high and lofty ideals that lead up to the purest and noblest living. One thought of great interest is, what shall I do and what will I be. In every normal heart there is the desire to be somebody and to do something worth while. If this be not submerged by unworthy thoughts and diverted from the way it will reach its consummation in useful manhood or womanhood.

It is right that boys and girls grow up together and learn to respect each other in their separate sphere. If the mind and heart be kept free from contamination they will be drawn toward each other with the highest admiration and the purest regard. Who does not recall the sweetheart

of his school days? It was the dawn of a new day and marked the beginning of important changes. A just pride came up in the heart and true manliness and womanliness began to assert itself. The future had a promise never seen before. The desire to appear well and to please took definite shape. The young man became careful about his dress and his personal appearance and the young woman likewise adorned herself with added beauty and grace. What a pity that in after years this spirit is sometimes lost in the busy cares of life and older people become careless about the little courtesies that add so much to the charm of life. Oftentimes it is true that what seems almost cruel fate separates these ardent friends of youth, but the impressions linger and life is richer and sweeter for the experience. Some have failed in the struggle of life and have fallen by the wayside. Many have been successful and made a record of usefulness that gladdens the hearts of those who hoped in them. No doubt many remember the old poem so familiar to the older people, "Forty Years Ago." As in imagination we wander back to

the old school playground and in fancy live over again the care free days of youth we realize what changes can come in so short a period of time. We see life from a different viewpoint. Once we thought it a dream, now it is real. If our school training has fitted us for positions of usefulness in the world so that we may take our place and assume our share of the responsibility then it is well. We have learned that it was not so much the text book knowledge. Much of that has been forgotten. But it was the character in process of formation. If there is a criticism to be made in the school system now it is this, there is too much cramming, not enough of the practical. Too many pupils come out of school broken in health and not a few with no conception of the real elements of success. If our educational training and experience is what it ought to be the memory of the past will be sweet and the future will in a large measure be secure.

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### 9832. Ladies' Draped Shirt.

Cut in 6 Sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 3 yards of 45-inch material for a 26-inch size. Price 10c.

**9352. Ladies' House Dress.**  
Cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6½ yards of 44-inch material for a 36-inch size. Price 10c.

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## Horseman

A new half-mile track has recently been completed at Ellsworth, Kan., and a fair association organized that will put on a good race meeting this year.

Austin C. Abbott, proprietor of Conway Stock Farm, at Conway, Mo., sold the stallions Kentucky Bondsman and Leibes Mac, by Ben Liebes, also his mammoth jack to Spiller & Roberts, at Lebanon, Mo.

A. G. Wheeler, at Carthage, Mo., owns one of the three colts sired by the former American trotter Royal Reaper, and the Knell Farm, at the same place owns an own sister to the son of Early Reaper, 2:09½.

Ora Vidmer 2:25, owned by J. T. Davis of Sturgeon, Mo., is one of the really good pacers of 1914. She has had two years of educational racing and is now five. She is by Major Vidmer and is in Joe Ginger's stable at Sturgeon.

At a meeting of the Missouri State Fair Board at Columbia, Mo., January 14th, W. A. Dallmeyer, of Jefferson City, was elected president and John T. Stinson of Sedalia secretary for the ensuing year by a unanimous vote of the board.

The fair grounds at Macon, Mo., have been sold for the fair association, and platted out into town lots, and will not be used as a fair grounds in the future. W. H. Cessna was the resident trainer and will sell his horses at public auction.

W. H. Pitts, of Bolivar, Mo., has his two good mares. Nila Mack 2:14½, by Brown Hal, and Miss Symphonia, by Symboleer 2:09½, to the court of Todd Allerton, the double-record fast son of Allerton, owned by E. I. Lauderbaugh, at Jasper, Mo.

Frank Cederburg, who has trained in former years at different places in Missouri and Kansas, but more recently for the Perry Stock Farm at Noel, Mo., is thinking about opening up a stable at some north central Missouri town, and most likely at Monroe City.

The 1914 racing stable of Harris & McComas, those popular and well-known Sturgeon, Mo., owners, headed by that real good money-winning trotting more Merlo Mac 2:16½, will, at the present indication, number about a car load. They are in charge of trainer Joe Ginger of that place.

John Weaver has added to his stable at Fayette, Mo., some six or seven head that he will train the coming season. He will have May Direct 3, 2:24½, the Very Direct filly that won the pacing division of the Missouri State Fair Futurity with last season, which is owned by J. A. Daly, Nevada, Mo.

It seems that the belated report of the death of Early Thacker p 2:06½, is nevertheless true, and that he died at Memphis, Tenn., from pneumonia some time last November. He was owned by Al Pickens of Neosho, Mo., and was in the Geer's stable, but raced in most of his 1913 starts by Mr. Goldston of Memphis.

Knox City, Mo., one of the members of the North Missouri Fair Circuit, has selected August 11th to 14th as the dates for their 1914 fair. A meeting of the members of the above-mentioned popular racing circuit will

be called by the management in the near future to make all necessary arrangements for the coming season.

### TO JUDGE A HORSE.

The following is attributed to Zenophon, the famous Greek writer, who lived more than 2300 years ago. It can scarcely fail to be interesting reading:

I write how not to be deceived in the purchase of a horse. If the horse is an unbroken colt, one must judge him by the construction of his body, as, if he has not been ridden, one cannot know from experience what his disposition is. It is first necessary to examine the feet; for as in the case of a house, where it does not matter how fine the superstructure may be, if the foundation is imperfect, the horse is of no avail if he has not good feet.

Look first to the horny portions of the hoof, for those horses with thick hoofs are superior to those horses with thin hoofs. Next, it should be noticed whether the hoofs be upright before and behind, or low and flat on the ground. The high hoofs keep the frog at a distance from the ground, while the flat hoofs press equally with the soft and hard parts of the feet. Strong footed animals can be known by the sound of their tramp on the hard earth, but the hollow hooved foot rings like a cymbal when it strikes the earth.

It is desirable that the parts above the hoofs and below the fetlocks—the pasterns—be not too erect, like those of the goat, for legs of this kind, being stiff and inflexible, are apt to jar the rider, and are more liable to inflammation. The bones must not, however, be too low and springy, for in that case the fetlocks are liable to be chafed and bruised when the horse gallops over clods and stones.

The bones of the shank should be thick, for these are the columns that support the body, but the veins and flesh on them should not be thick. If they are thick, then when the horse is galloped over rough ground the veins will fill with blood and become varicose, so that the shanks will be thickened and the skin become distended and free from the bone. When this happens the back sinew gives way and the horse becomes lame.

If the horse when walking bends his knees flexibly he will also have flexible knees when going at a faster pace. Horses decrease in flexibility of the knees when they increase in age. Flexible goers are highly esteemed, as they should be, for such horses are less liable to stumble than when they have rigid unbending joints.

If the arms below the shoulder blades be thick and muscular, the horse appears handsomer and stronger than otherwise, as in the case of men. The breast should be broad as well for beauty as for strength. This also causes better action of the fore legs, which do not then interfere, but are carried well apart.

The back should not be set on like that of a boar, horizontally from the chest, but like that of a game cock, should be upright towards the crest. Jawbone should be small and narrow, so that the neck will be in front of the rider, and the eye will look down at what is before the feet. A horse of this conformation will be less likely to run away, even if he be a high spirited horse, for horses do not attempt to run away by bringing in but by thrusting over their heads and necks.

Note whether the mouth is equally hard on both sides. If the jaws are not equally sensitive the horse may be hard mouthed on one side or the other. It is better to have the eye

prominent than hollow, as the prominent eye will see further than the hollow one.

Wide nostrils are better for respiration than narrow ones, and they give the war horse a fiercer aspect. The higher the crest and the smaller the ear, the more horse like and handsome is the head. High withers give the rider a sure seat and produce a firmer adhesion between the body and the shoulders. A double loin is also softer to sit upon, and better to look upon than if it be single.

He is also stronger and can more easily be kept in condition. The shorter and broader the loin the more easily will the horse raise his fore quarters and collect his hind quarters under him in going. These points cause the belly to appear smaller. If it be large it injures the appearance of the animal, renders him weaker and less manageable. The quarters should be broad and fleshy in order to correspond with the sides and chest. If they are firm and solid the horse will be light in the gallop and will be speedy.

### IMPORTANCE OF THOROUGH GROOMING.

The skin of a horse is a very active excretory organ, supplied with an almost infinite number of pores, each of which the opening of a small spiral duct through which there is a continual discharge of watery fluid and such other useless matter as is carried there by the blood. Then there are numberless small glands in the skin which secrete an oily fluid. This oily substance tends to keep the skin soft and flexible and it also supplies the hair with sufficient nourishment to keep it soft and glossy. The wear of waste matter which comes off the skin itself in the shape of small flakes constitutes scurf.

All these waste matters must be removed at regular intervals if the skin is to be kept properly cleaned. When a horse is worked hard the secretion of watery fluid is heavier than when idle, coming to the surface in the form of sweat. Perspiration goes on incessantly, even when a horse is idle, but it is not so apparent then for the reason that the sweat is evaporated as fast as it comes to the surface. If the sweat is allowed to dry on the skin at any time quantities of dust will accumulate and mix with it, thus filling up the pores and, in a measure at least, preventing perspiration. When this condition is allowed to continue for any length of time the skin becomes dry, hard and diseased. As the impurities of the body cannot escape through the skin they accumulate and the result is blisters, boils, etc., and in this way the whole system of the horse becomes diseased.

Naturally, therefore, regular and thorough grooming tends to promote good health. It is during periods of idleness that the matter of grooming is most likely to be neglected, for nearly all farmers curry their work horses regularly when they are performing work. Of course, as already stated, the secretion of waste matter is greater during warm weather or at other times when a horse is performing hard work, but the waste accumulates on the skin fast enough during periods of idleness as to necessitate a good grooming nearly every day. And this grooming doesn't mean merely to rub the animal off with a cloth or brush. The brush will remove the particles of dirt clinging to the hair but it will not go down deep and loosen the dirt that has adhered to the skin proper. Vigorous work with a currycomb is required to accomplish this object.



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821 Holland Building, St. Louis, Mo.

Forest Grove, Oregon, March 15, 1913.  
Mr. R. Boylston Hall,  
40 State St., Room 42, Boston:

Dear Sir—I wish to apologize for not acknowledging receipt of your book on Horse Shoeing before. Your book arrived just as I was moving, and I didn't have time till a few days ago to read it. You certainly deserve full credit for your work and the congratulations of every horse owner. The easy and clear way you explain your principles makes it a book that everybody can read and understand, this alone being worth more than all the treatises written on that subject so far. Hoping that you are getting all the credit due to you, and again thanking you for remembering me, I am, your very truly,

(Signed) C. P. McCAN.

then the grooming may be completed with brush or cloth.

Groom the young colts just as regularly and just as thoroughly as the other horses. This is necessary for the sake of the health of the young animals, and it gives good results in other ways. The colt that is accustomed early in life to stand quietly and submit to a thorough grooming with currycomb and brush will be a more valuable animal when the time comes to break it to harness than the animal that has never been touched since it was a suckling colt. It always pays to begin handling the colts at an early date.—W. Purdue.

#### SHALL WOMEN RIDE ASTRIDE OR ASIDE?

I have been asked this question hundreds of times, and have always said women should ride the side-saddle.

Girls up to fourteen or fifteen should ride astride, but after this age they should learn to ride the side-saddle. I remember a countess in Vienna, a splendid side-saddle rider at the age of twelve, but she spent several hours in the saddle every day, and it was discovered that the child carried one hip and shoulder higher than the other; after this the girl had to ride off-side. It is remarkable how easy children ride, apparently ignorant of fear or danger.

As soon as girls become women they should learn to ride the side-saddle. The experience in an astride-saddle will make it easy for them, and soon the young women become accomplished riders and they can judge for themselves, which they almost invariably do in favor of the side-saddle. The most slender girl who has ridden from childhood astride will never have the independent seat, grip and balance she would have obtained in the side-saddle.

You often see women riding astride with their feet sticking forward, toes pointed down and standing in their stirrups, balancing on the horse's mouth.

A woman is physically different from a man and astride will never reach the point where horse and rider are one; therefore, she will never be able to make the horse show his very best. Women should consider well before taking a fence astride, on even the best trained horse.

The side-saddle will bring a woman in such a position that her muscular strength is free and fully at her disposal, and, if she is properly taught, will soon get an independent seat, light hands, which women generally obtain easily, and so she soon feels secure and safe without bearing hard on the stirrup or hanging on the right pommel and finally finds it a pleasure to master and control without effort even the most high-mettled horses.

Any lady can become a good rider in the side-saddle even if her age and figure be to her disadvantage.

It is said the side-saddle is harder on a horse than the cross, but a horse will carry his mistress side-saddle just as easily and more gracefully if he knows how to ride, as in the cross-saddle. It is also said that the side-saddle tires one more than the cross; if so, why is not the cross-saddle used by the riding mistresses in New York and Paris? These women are in the saddle many hours every day.

At the horse shows in England, like the Olympia or Richmond, women have always used the side-saddle, and many a man has been second to her, who displayed the art with more grace, skill and efficiency than he.

It is a pleasure to witness the drill and competition ride of the Red

Cross Squadron in the Agriculture Hall in London. This squadron is composed of young society women, their uniform is complete and splendid, they mount and dismount, drill and jump four abreast as exactly as any squadron in the United Kingdom, but the most daring of all is the way they ride one horse and lead another at full gallop. This is required in case of war, and "they ride the side-saddle."—N. Gordonwoot.

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Brainards, N. J., Oct. 7, 1913.  
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Gentlemen—I have used Kendall's Spavin Cure for twenty-five years, and have always found it perfectly reliable—never failed me. Respectfully yours, G. M. VANATTA.

#### SAYS CURED THREE BONE SPAVINS AND A CURB.

1662 4th Av., Terre Haute, Ind.  
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Dr. B. J. Kendall Co.,  
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Gentlemen—I have cured three bone spavins and one curb with your Spavin Cure and Blister, and find many more valuable receipts in your Treatise on the Horse. Yours respectfully, GEO. H. HANKER.

#### THE GREATEST BENEFIT FROM BEES.

Estimates, based on reliable data, show that bees in the United States produce \$25,000,000 worth of honey and beeswax annually. This amount, if loaded on 40-foot freight cars holding 30,000 pounds each, would make a solid train 50 miles long. From these figures it can be seen that the little bee furnishes the people of this country with an enormous amount of valuable food. However, producing honey and beeswax is not the only function of the bee. The greatest economic value of the bee comes from the part it plays in the pollination of fruit trees and certain farm crops. Orchardists are especially cognizant of this important factor and many believe that the best crop of apples would be an impossibility without the aid of the bee in helping to distribute the pollen. Two orchardists by the name of Van Rensselear and Southam leased an old orchard of fifty acres near Cleveland, Ohio. Before they took charge the orchard had yielded almost no return to the owner. Not only did the lessees begin to prune and spray, but they had more than 50 colonies of bees put in the orchard, as it was their belief that they could not grow fruit to advantage without bees. In the fall of 1913 they harvested 16,000 bushels of apples. The bees, they said, played



Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in United States upon receipt of \$3. Catcher, \$1 high, for mice only, prepaid \$1. On account of shipping charges being prepaid, remittance is requested with order. H. D. SWARTZ, Inventor and Manufacturer, Scranton, Pa.

no small part in producing that excellent crop. Many other experiences have shown the bee to be responsible for better crops of seed from many farm crops. It is for the part it plays in the pollination of fruits and farm crops that the bee is valued at many times its worth as a producer of honey and beeswax.

If you want to buy, sell or exchange anything try our classified ad department. Everybody reads the small ads and will read yours.



## "My Boy, This Diploma Will Give You a Start in Life"

said a wise father to his son. "It will make you a prominent man in the Business World. In it you will have an asset which you cannot lose by speculation—one which cannot be stolen or taken from you. Panics may come and go—fortunes may be made and lost in a single transaction—your fellow-men may conspire to cheat you out of your goods and chattels, but *your legal education* is with you forever. It is the one asset that you couldn't lose if you wished to, but it's an asset which you can convert into ready cash over and over again. I am now getting old. Ere long I may be called to that bourn from which no traveler ever returns, but I am happy to know that you are prepared to go out into the world and take your place among men and make good."

These remarks from a father to son are full of food for thought. That which this father has done for his son, you can do for yourself; or you can help do for your son, your brother, or the young man in whom you are interested. If you are an employer of men, encourage them to study law. It will come back to you a hundred times, in the increased efficiency of your employees. All you need is our help through our home-study law course and this you may have for a very small amount payable in small monthly sums.

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With our Law Course, each student receives without additional cost, our complete Law Library, consisting of 14 volumes of American Law and Procedure. This Law Library is worth the entire cost of our course. It was written by over twenty of the deans and professors of law in the leading law schools and universities. It cost us nearly \$40,000, being more than the entire capital invested in many schools.

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## BRINGING THE PRODUCER AND CONSUMER TOGETHER

**Co-Operation the Key That Will Unlock the Door of Prosperity to Farmers.**

### UNITING FOR PROGRESS.

I believe in business organization. Farming is a business, therefore the farmers should be organized.

Not in small affairs, good as each may be, but into one federation of agricultural organizations and individual farmers. Something of sufficient magnitude to command the respect of modern business commanders, says Uncle Parker in American Cultivator. Such an organization would lessen the high cost of living by working in a double harness with all tugs fastened to the same evener.

By shaking off the thousands of human barnacles now attached and throttling all gambling in food products.

By teaching the principles of equity between all parties to an exchange of commercial commodities. Today I have to accept such a price for my oats as the breakfast food man deems best to give without any reference to what the product costs me, while I must pay that same man's own price for the meal my oats make. Neither has the shoemaker the right to force me to take a small price for my cowhides or not sell, while he at the same time is charging two prices for shoes because leather making

hides are hard to find and he knows the human family cannot go barefooted; they must obey him as his business is organized and all members are pulling on the same rope in the one direction.

By opposing extortion in any form by any class of people, farmers and laborers, as well as others.

By showing there can be a fair profit on all articles without greed.

By finding and using the key that will unlock and give freedom to the justice there should be in all matters.

I realize that prices cannot be made at will by each individual producer, but as necessary cost can be made the basis of a selling price without injustice to the buyer.

Today there are too many revengeful organizations among the farmers judging by the talk of the active members. So far they have gained but little. Why? Because they are too small in numbers; they are at work on wrong lines.

Mere gains in buying and selling in quantity while the other fellow sets the price both ways, is not solving the problem.

They are betting against a common federation of boards of trade, stock

gamblers, buying and transportation organizations backed by large money centers.

The farmer in his ignorance thinks he is marching when he is merely marking time.

### FORGET IT.

**Editor RURAL WORLD:** The egotistical or the Big I man is fast finding out that the world will go on just the same after he is gone, and people take us for what we are, not what we might think we are.

If any man thinks he is some—forget it.

It's not even as much what we are, a sit is what we depend upon.

Two men walking up a mountain: one small, weak man; the other a large, strong man. While about half way to the top, a large cake of ice and snow is seen by both coming down the mountain toward them. The large, strong man defies the huge cake and stands his ground, but the heavy cake of ice and snow goes right over him and crushes him into many pieces. The small, weak man runs to a large rock and climbs very high and the rock parts the ice and snow and he came out almost unharmed.

The weaker man is stronger on the rock than the large, strong man is on the ground. If you are a man who thinks there is nothing in this world stronger than you—forget it.

**Farmer,** if you think many thousand farmers linked together under the Equity banner is not as great a thing as you are—forget it.

**Consumer,** if you think the world is going to take notice of your individual needs and wants—forget it.

If you are one who thinks you were

put here upon earth just to look after your own individual needs—forget it.

If you think you can take notice of no one else and they still linger, to see if you might need and ask their aid—forget it.

If you have been standing your ground as an individual, thinking you did not need the aid of organization—forget it.

If you think you are stronger than that which you depend upon—forget it.

**Farmer,** if you think raising a large crop is going to market it—forget it.

**Consumer,** if you think middle-men will buy of producer just for fun—for get it.

If you think money is going to continue to be more powerful than organized men—forget it.

If you think you can combat with organized money unorganized—forget it.

Our best educators claim the art of learning is the art of forgetting. That is to say, we must forget to work sixteen hours a day for less pay than we could get for eight hours' under Equity plan.

V. I. WIRT.

Virden, Ills.

Turkeys are more liable to suffer from the effects of overfeeding when the weather is mild. After the cool frosty nights come, they can eat plenty of corn and other feed without fear of indigestion, provided they have sufficient grit at all times.

A Louisiana man has invented a process for staining wood as it grows in a tree. A receptacle holding dye is suspended several feet up the tree and from it a hose conducts the dye into the flowing sap near the base.



F. N. THOMPSON FILLING HIS SILO AT CHILHOWEE, MO.

**Editor RURAL WORLD:** You will please find under separate cover a cut of my barn and silo while I was filling it. I own my outfit—a ten-horse Nickles & Shepard engine and a 28-inch Kalamazoo cutter. I have two farms and a silo on each; this season it cost me \$63 to fill my 100-ton silo, and I consider that cheap feed. I never had cows to do better than mine are doing this winter;

while there was no grain to speak of in the corn I put in my silo, and I feed about 25 pounds of silage per cow each day, with a little wheat bran; my cows are in fine condition and giving a good flow of milk.

Last but not least, I called this community together on December 20 to hear Mr. C. O. Drayton lecture, and it being a disagreeable, rainy day, there were only about sixty

out to hear him. But we organized with 22 members, and our farmers seem to be very much interested in the movement. I have the honor of being elected president and have had several invitations to give talks to school houses which I intend to do, as the farmers are the chief factor of the nation if they will only unite and stay united, which I hope and trust and fully believe that the

Equity plan will do it. God helps those who try to help themselves.

Later, Jan. 21st, 1914, we met here at the Union church today and 17 new members united with us, and we hope it will only be a short time until we will have our new elevator up and ready for business.

Success to the good old RURAL WORLD. I will try to send you a few subscribers later as I am quite busy at the present time.

F. N. THOMPSON.

**ROCKVILLE, MO., ALIVE.**

**Editor RURAL WORLD:** The Rockville Equity Union held a special meeting January 9, at which our National President delivered a very encouraging address. There was only a small crowd present, but the lecture seemed to be very effective. Three new members joined, making our enrollment number sixty-five, of which twenty-two have paid the 1914 dues. Let us all work together and pay our dues so we have sixty-five live members and then each member to join then we can market our own wheat and build an elevator in Rockville for ourselves instead of building one for capitalists.

The local president is taking orders for corn, feed oats, seed oats and fertilizer. Since he ordered the first car of corn we have been able to get corn cheaper and also getting a better grade of corn. This is proof enough of what we can do if we work and trade together.

Hoping to see all the old members pay the 1914 dues to the Secretary and come to the meeting February 7, at which we will talk on any subject that will be of interest to the farmer.

**A LIVE MEMBER.**

Rockville, Mo., Jan. 20.

**THE PROBLEM OF DISTRIBUTION.**

At the recent meeting of the State Horticultural Society at the University of Illinois, some very definite views were expressed by various speakers on the important subject of the Problem of Distribution. Mr. W. S. Perrine of Centralia spoke as follows:

**From the Producer's Standpoint.**

"The small grower needs and must have a co-operative organization if he is to live. With such an organization properly run he could get twice or three times as much for his fruit as he does now.

Its manager would keep in touch with the various markets and sell either to highest bidder at local shipping point, or to buyers on distant markets or send on consignment to responsible firms. The individual, even the large grower, does not and cannot know the general market conditions and so, cannot distribute the fruit properly.

"I am not one of those who believe that we can do away with the middle man entirely. It simply will never be done in any general way, at least not for some time. However, the number of middlemen should be cut down as much as possible.

"A co-operative producers' organization might sell to a co-operative consumers' organization. This would cut out the middlemen and would get the stuff from producer to consumer with the least possible expense. This is possible, I should say, in a very limited way. It takes intelligent, honest people to form and operate successfully co-operative organizations, whether honest producers or consumers. There are a lot of people both producers and consumers who have not reached the degree of intelligence necessary for such operation."

**Second—From the Viewpoint of the Consumer.**

Mrs. Caroline A. Bley described what the Chicago Clean Food Club accomplished last year and what it is doing this year in the way of handling eggs for the consumer. Among other things she said:

"This year conditions are different than they were last; fewer eggs were stored and those that were stored seem to have gotten into the hands of speculators and extortionate prices were asked. For this reason the Chicago Clean Food Club started a boycott on storage eggs for which the farmers received about 18c per dozen in the spring and which were stored

and insured for not more than 2c per dozen. With these facts in mind 32c per dozen retail seemed a fair price so that price was demanded by the club women. This action was enforced by nearly all the women's clubs in and around Chicago, and the marked decrease in the consumption of eggs was soon felt by the trade and the price was lowered.

The discussion in the newspapers has brought out the fact that usually six men handle eggs before they reach the city consumer; namely, the farmer, the country store keeper, the shipper, the commission men, the jobber, and the retail grocer. You see that the egg business is already highly specialized and the tendency is toward greater specialization.

**Third—From the Viewpoint of the Commission Man.**

The commission man was represented by Mr. John Denny of South Water street, Chicago. He said in part:

"We have all heard of all kinds of propositions to eliminate the waste, reduce the cost and distribution of fruit produced, so that the grower could realize more and the consumer buy cheaper. One of these propositions is that all the products of this country be united together in one enormous organizations, and the owners of the farms actually control everything. It would practically be a public institution, not exactly operated by the Government, but by an immense number of people. An organization of this kind, first of all, would be unwieldy. I believe it is the experience of all of us that every public institution is operated more or less extravagantly, unsatisfactorily, and politics and favoritism would be bound to creep in.

"Another scheme that is being proposed is that the grower should go direct to the consumer in the cities, or in other words, start the whole thing over. For you to do this, any of you who have any crop of consequence would have several stenographers, and a large office force, and it would require all of your personal attention to the marketing of the crop, so that there would be little time left for you to devote to its production, and if this method was generally used, it would reduce the consumption of fruits and vegetables considerably. If you were supplying your city customer with apples or some other thing that was not an absolute necessity, they would expect to receive it on a certain date. For some reason you might be delayed in forwarding. They would not have a regular supply. If a consumer today goes to a retailer and asks for apples or other fruits, and the retailer has none in stock but gets them tomorrow or next day, that sale has been lost and it is never recovered. The consumer does not go back the next day or the day after and buy twice as much, and by this manner of distribution that some are advocating, this would be the case, because it would not always be possible for you to keep your customer fully and evenly supplied."

**LESS THAN 12 PER CENT OF LAND YIELDING MAXIMUM RETURNS.**

With a population of less than 95,000,000 of people living on more than 3,000,000 square miles it is ridiculous to speak as if our territory had been more than pioneered. The population per square mile in the Union does not exceed 31, and ranges from sevenths of one per cent in Nevada to 508 in Rhode Island.

According to the best statistics available, it appears that the total arable land in the Union is approximately 935,000,000 acres; that only

**FARMERS EQUITY UNION COAL****Blackbriar—Highgrade****Cantine—Semi-Highgrade**

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Reference: Mr. C. O. Drayton, National President Farmers' Equity Union  
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SHIPMENTS ANYWHERE.

about 400,000,000 acres of this are included in farms and improved; that over 100,000,000 acres are unimproved and not included in farms, and the remainder is unimproved lands included in farms. According to the best guesses I can secure, it appears that less than forty per cent of the land is reasonably well cultivated, and less than 12 per cent of it is yielding maximum returns.

That we have practically reached the stage where we have ceased to be an exporting nation of food products and are becoming dependent on foreign nations for the necessities of life is a sad commentary upon our use of the opportunities bestowed upon. We had better frankly face the fact that we are relatively inefficient, take stock of our shortcomings, and earnestly seek the remedy.

**POINTS ON ALFALFA CULTURE.**

The following "don'ts" were given by R. E. Smith, the "Alfalfa King" of Texas says the Western Farmer:

1. Don't sow any nurse crop.
2. Don't sow on freshly plowed land, no matter how carefully prepared.
3. Don't let weeds or grass grow over six inches high without clipping.
4. Don't clip or mow when wet with rain or dew.
5. Don't let alfalfa stand if turning yellow; cut it.
6. Don't sow old seed (unless it shows strong vitality by germination test).
7. Don't sow seed all one way; sow one-half each way.
8. Don't sow on land that will not raise 250 bushels of potatoes (1500 pounds), per acre.
9. Don't sow twenty-five acres at first; sow five.
10. Don't pasture it. (If grown for your meadow purposes.)
11. Don't put any of your rotten manure anywhere but on your alfalfa plot.
12. Don't depend on "culture cakes," or soil from some distant field.
13. Don't let water stand on it.
14. Don't let it go, if a thin stand, but disk it. Don't be afraid you will kill it.
15. Don't wait for it to stoll; it never does.
16. Don't try to cut for hay until the alfalfa takes the field.
17. Don't sow on any land not well underdrained.
18. Don't leave your land rough; use a roller or a blank float to level and smooth it.

Without strong and well-bred birds a good egg yield is not certain, even with the most efficient management. Hence much time and thought and perhaps money should be expended in the improvement of the flock by mating and breeding.

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The most wonderful, varied and valuable group of mineral springs in America. Splendid big up-to-date hotels, boarding apartments and bath houses. Quickly and cheaply reached by the

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General Passenger Agent,  
ST. LOUIS.

**WINTER HOME OF DEER.**

The winter home of the American red deer is very interesting. When the snow begins to fly the leader of the herd guides them to some sheltered spot where provender is plentiful. Here as the snow falls they pack it down, tramping out a considerable space, while about them the snow mounts higher and higher until they cannot get out if they would. From the main opening or "yard," as it is called, tramped out paths lead to the nearby trees and shrubbery which supply them with food. In this way they manage to pass the winter in comparative peace and safety.

**BEES AS VENTILATORS.**

It is not generally known, but most beekeepers will inform you that such is the case, that each beehive has a corps of what could properly be termed "ventilating bees." During the hot seasons these ventilators station themselves at the entrance of the hive and fan the interior with the incessant motion of their wings.

These ventilating corps are usually in relays of from four to half a dozen, and they are relieved at short intervals by fresh workers who keep up the fanning process. They are kept at work by a sort of patrol of bees, which insures incessant activity on the part of the fanners during the time they are at work.

Hogs fatten best when not disturbed or excited.

King Edward of England and his queen received \$2,350,000 per year from Great Britain; the Prince of Wales, \$100,000; the Princess of Wales, \$50,000; the Duke of Connaught, \$125,000, and the entire amount paid to the royal family of England amounts each year to \$2,820,000.

## CLASSIFIED WANT and DEPARTMENT

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#### TRY A CLASSIFIED AD.

##### SITUATIONS WANTED.

**MEN FOR ELECTRIC RAILWAY**—Motor-men and conductors; fine opportunity; about \$80 monthly; experience unnecessary; no strikes; state age. Address F. H. F., RURAL WORLD office.

##### FARMS WANTED.

**WANTED**—Improved farms and wild lands. Best system for quick results. Full particulars and magazine free. Don't pay big commissions. Western Sales Agency, Minneapolis, Minn.

**WANTED**—To hear from owner who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

##### FARMS FOR SALE.

**FARM FOR SALE**—The very best truck farm in Southern Illinois,  $\frac{1}{2}$  miles from Mt. Vernon, Ill., 43 acres, two sets of improvements, abundance of water; on main road, rural route, telephone line. I have been gardening here eight years and the land is in highest state of cultivation. The land has been heavily manured and tons of fertilizers used every year. Good market for truck here. Two acres of fine spinach, Hot beds made. This is a property that will pay immediately. Address A. N. Chevignon, Mt. Vernon, Ill.

**ARKANSAS LAND FREE**—500,000 acres vacant Government land now open to settlement. Booklet with lists, laws, etc., 25c. Township map of State, 25c additional. L. E. Moore, Little Rock, Ark.

##### SEED CORN.

**SEED CORN**—White Elephant, selected quality, both old and new, all graded tested seed, \$2.00 per bushel shelled. Robt. Plate, Mexico, Mo.

**SEED CORN**: Johnston County and Iowa Silvermine, \$2.30 per bushel shelled, \$3.00 crated. Also 1912 raised Silvermine. Emil J. Meyer, Cape Girardeau, Mo., Route 2.

**SEED CORN**—Orders now taken for Boone County White, Johnson County White, Reid's Yellow Dent and Leaming seed corn, to be shipped later, on approval. Prices: \$2.50 per bu. shelled and graded, \$3.00 crated. Order early. Oaklawn Seed Farm, Chatham, Illinois.

**CORN**—1000 bushels pure bred high yielding seed corn. Dunlap, Williamsport, Ohio.

**ORDERS** now taken for Johnson County Seed Corn, to be shipped later. Prices: \$2.50 per bushel shelled, \$3.50 per bushel crated seed. The supply of seed corn will not half equal the demand. Order early. C. D. Lyon, R. 1, Georgetown, Ohio.

##### CLOVER SEED.

**FOR SALE**—Selected red clover and Indiana grown barley direct to farmers in any size shipments. Write for samples and prices. Townley Grain & Supply Co., Monroeville, Ind.

**NEW WHITE SWEET CLOVER SEED**—Also, leaf tobacco. J. T. Mardis, Flemington, Ky.

##### GINSENG.

**GINSENG SEED**—Choice Ginseng Seed \$1.25 per 1000. Each thousand produces over \$200.00 worth of ginseng. Every farmer should grow it. Order now. E. Douglass, Brawley, Mo.

##### HORSES.

**TROTTING STALLIONS** for sale, cheap. Standard bred and registered; 16 hands; weighs 1200 pounds, gentle driver and a sure breeder. For particulars address Chas. Schiek, Freeburg, Ill.

**FOR SALE**—A few standard and registered stallions, twelve yearling colts and fillies. Write for prices and description. Colman Stock Farm, Creve Coeur, Mo.

##### JACKS AND JENNETS.

**FOR SALE**—Ten head splendid jacks, yearlings to jacks 15-3. Would lease a stallion to responsible parties buying a jack. Twenty head good jennets. Will trade. One extra February roan bull calf, pure bred. Wilmer L. McIlroy, Louisiana, Pike Co., Mo.

##### LIVE STOCK.

**FOR SALE**—Ten choice registered bull calves for sale, from two to eleven months old, from high-class, heavy-producing Jerseys. Write me for prices, stating age you want. D. S. Mayhew, Monett, Mo.

## RURAL WORLD WANT ADS.

### MISCELLANEOUS.

**BUILD YOUR OWN INCUBATOR** and have better machine for one-third the money. Complete plans and specifications for building incubator and brooder and instructions for the operation of each with an article on rearing chicks past their critical stage. Price \$1. Satisfaction guaranteed. Agents wanted. Buchanan Incubator Works, 629 West Johnson St., Madison, Wisconsin.

**FREE** to all housewives and homes, catalogues describing household specialties. Handy, useful necessity for the busy housewife. This opportunity is absolutely free for the asking. Send your order at once. Address Nebraska Supply Co., Belden, Nebr.

**LET ME HELP YOU** secure information on any subject; buy or sell profitably; make paying investments. Honest, efficient service reasonable. Bank references. Investigate now. Chas. Brads, Vanderbilt Bldg., New York.

**NEW 1913 EDITION.** Government Farms Free.—Our 1913 official 32-page book, "Free Government Land," describes every acre in every county in the United States. It contains township and section plats, maps, tables and charts showing inches rainfall annually, elevation above sea level by counties. The New Three-year Homestead Law approved June 4, 1913, the 320-acre Homestead, Desert, Timber and Stone, Coal, Pre-emption, Scrip, Mining and other government land laws. Tells how and where to get government lands without living on it. Application blanks, United States Patent. All about Government Irrigation Projects and map showing location of each. Real Estate Tax Laws of each state, area in square miles, capital and population and other valuable information. Price 50 cents, postpaid. Address Colman's Rural World. This valuable book will be sent with new or renewal subscription to Rural World for \$1.00.

### KENTUCKY NOTES.

Editor RURAL WORLD: In looking over the RURAL WORLD I find an article, "Soil Blowing." Now, I have an idea that where that happens much there would be some poor land apparent. Then, why not grow Mammoth sweet clover, the large white variety Alba. You can sow the seed now during the winter and the seed would come up in the early spring, for such land would sow about 20 pounds per acre, it would not be long till there would be a heavy green mat and surely the wind would not have so good a chance to blow away the soil. A few fields of sweet clover on every farm in the blow district should certainly prove to be of great value.

It is always well to have a nice lot of land on every farm that is resting, and while that resting is going on it should be replenishing the earth with fresh growing elements for crops in the future, there is nothing that would do this more effectively than sweet clover. A friend from Kansas to whom we wrote and sent some literature on sweet clover, told us there was no sweet clover grown at his point and said he believed it would be a good thing for farmers to grow it there. That is just what I mentioned in one of my articles not long ago. It is so hard to get farmers to try the plant. Farmers ought to grow sweet clover if for no other reason than to just keep up the soil's fertility; but when it is known that fertility of the soil is not all sweet clover will bring, but will also bring grazing for stock and make good hay. We cannot see what there is to hesitate about in not sowing.

I read an article the other day in a farm journal where one man had told another all about the good points of sweet clover and the listening friend said that sounded very good, but was asking some other one if there was a cog loose somewhere in the machinery of the friend's head. It may be that it does sound too good to be true. The friend in question had mentioned that his horses and other stock would reach over the fence and eat every bit in reach. Horses do especially like the sweet clover when seed is ripening and any one who has not tried this plan when you have a chance let your horses get a chance at the clover in seeding time.

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pense. Every garment made to measure. You pick the style and fabric. Superb tailoring. Swell style. Finest goods, express prepaid.

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Dept. 108

**American Woolen Mills**  
CHICAGO

and methinks they will prove to you that sweet clover is good to eat. So many seem to think it's an impossibility to get stock to eat it, but it is only a matter of teaching stock in the right way to bring stock to like sweet clover.

In seeding time of sweet clover is just how we learned that stock would eat it and we lost no time in getting seed to sow, and we never did a better thing in our lives than that first day we sowed sweet clover seed. Whereas our progress was naturally slow, having only a very small quantity of seed to sow for a beginning, and we had to wait a number of years to bring results, our friends who care to can buy the seed now in large enough quantities to sow fields of it, where we had to be content on a little patch. Friends, can you not see you are losing valuable time in putting off the starting of sweet clover growing?

Every now and then we receive a letter from a friend asking us if we can tell them where they can buy the seed. So, let me repeat, friends, we have had an ad. in the RURAL WORLD ever since last July to the effect that we are offering for sale white bloom Mammoth sweet clover, also the large variety of yellow bloom. The advertising page should be scanned each week to see what your friends have to sell that you might be glad to buy.

Also will mention here that letters have been returned to me because the rural route number has not been given. So, friends, if you write me and you do not hear from me in due time it is because I either did not get your letter or you forgot to give your address complete, see?

Prosperity and health to all RURAL WORLD readers.

Kentucky. MRS. J. T. MARDIS.

The Tower Cultivator, manufactured for many years at Mendota, Ill., has an attractive announcement in our columns. This system has made a great increase in the yield of corn, potatoes, cotton, etc., since its introduction many years ago. No progressive farmer who has once adopted the Tower System of Surface Cultivation ever thinks of giving it up. It means comfort for the workman and the team and a much larger yield for the crop. It does away with the cruel pruning of the plant roots, which, of course, has cost the farmers millions of dollars every year in the past. It is every farmer's duty to urge surface cultivation for the good of his neighbor who has not yet learned its worth. A free corn booklet may be obtained by writing at once to Tower & Sons Co., Fifth street, Mendota, Ill. We urge our readers to get this booklet, as it means the way to better crops and more income.